CLINICAL MEDICINE AND SURGERY

GEORGE B. LAKE, M.D.
• *Editor* •

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EDITORIAL

Dr. Thomas Parran, Jr.

Surgeon General, U.S. Public Health Service

THE measure of a life is not years, but accomplishment.

The truth of this statement is once more verified by the career of Thomas Parran, Jr., who, at the age of only forty-four years, became Surgeon General of the United States Public Health Service on April 6, 1936, succeeding Dr. Hugh S. Cumming (see CLIN. MED. AND SURG., Feb., 1925, p. 69; and May, 1936, p. 262), who was retired on account of age, in February.

Dr. Parran was born September 28, 1892, at St. Leonard, Maryland, and received his preliminary education in the public schools and from private tutors. He received the Bachelor of Arts degree from St. John's College, Annapolis, in 1911, and the Master's degree in 1915—the same year that he took his medical degree (with honors) from the Medical School of Georgetown University, Washington, D. C.

Two years after his graduation, the young physician (only twenty-five years old) entered the Public Health Service, and the next year was assigned as medical officer in charge of the Muscle Shoals Sanitary District and chief medical officer at the government nitrate plant, which was a full man's-size job in war times.

In 1919, when the War was over, he became executive officer of the medical department of the War Risk Insurance Bureau, and in the latter part of that year was placed in charge of the Tri-State Sanitary District, comprising the lead and zinc mining areas of Kansas, Missouri and Oklahoma.

From 1921 to 1923, he served as state director of rural sanitation in Missouri, after which he was director of county health work for the Illinois State Department of Health.

In 1925 he went to Europe to study methods for the control of venereal diseases, and on his return, the next year, was made assistant surgeon general in charge of that work in the Public Health Service. He is now considered the foremost authority in this country on the public health aspects of the control of syphilis, and in his present position is likely to make people include the name of that disease in their general vocabularies, along with tonsillitis, appendicitis and infantile paralysis.

In 1930, at the request of the Governor of New York, he was "loaned" to that commonwealth as State Health Commissioner, and served in that capacity until his appointment as Surgeon General of the Public Health Service, being the sixth incumbent of the latter office, and the first who has previously served as state health officer.

Dr. Parran is a fellow of the American Medical Association; president-elect of the American Public Health Association; and a member of the scientific advisory boards of the National Research Council and the Henry Phipps Institute of Philadelphia. He was

chairman of the American delegation to the International Congress on Dermatology and Syphilis, at Budapest, in 1935; and is the author of numerous papers on public health and scientific subjects.

The new Surgeon General is by no means "sold" on health insurance and other features of State Medicine, and there is reason to hope that, in his important national position, his forceful and vigorous personality may enable him to popularize the methods by which he proved, in New York State, that the government *can* help those people who really need assistance, without disturbing the indispensable personal relationship between physician and patient, and without forcing the members of the medical profession to become the pawns of ignorant and crooked politicians.

Every physician in the country ought to stand behind Dr. Parran and assist him, in every possible way, in carrying out the tremendous job he has assumed, for there never was a time when an active, intelligent and capable man was more needed in his position.

The law of success is within *you*. You will never find it elsewhere.—WILLIAM E. TOWN.

Physicians Should Help Themselves

PHYSICIANS, from time immemorial, have been keen individualists and poor business men. Perhaps, in these days when cooperation is so essential to progress, this combination of traits has been the reason why they have been economically distressed.

Another trouble has been that medical men have seemed disposed to wait for someone outside of the profession to do something for them. If this goes on much longer, they are liable to wake up some cold and gloomy morning, to find that the Government has done something to them that will be anything but pleasant.

There is a remedy, for those who have the intelligence, the initiative, and the social perspicacity to apply it. The thing *has been done* in several cities, and in this issue there is a story of how it was accomplished in Toledo. That article should be read by every physician and dentist who can lay hands upon it, for such a plan can be carried out in every city of any considerable size in the United States.

In its present form it may not be practicable in the smaller places, but it would seem entirely feasible that the plan could be extended to include the territory within a radius of a hundred miles or so of the cities where it is working. Moreover, there seems to be no sound reason why similar credit and financing associations could not be organized in the more populous rural counties, or in groups of several such counties.

Learning the technics of medicine and surgery is a long and arduous undertaking, and most physicians have neither the time nor the inclination to apply themselves to acquiring the technics of modern business. But in every good-sized city, and in practically every county, there are doctors who are astute business men, as well as those who are clever politicians. The profession in general should cooperate in making the best use of the abilities of those who are thus specially endowed or trained.

If physicians would wake up to the fact that they can do something for themselves in a business and social way, and then *do it*, the complaints of the advocates of socialized State Medicine would be met in an unanswerable way. Here is a program, for those who lack the initiative to devise one, which needs only to be *followed*. We shall be glad to hear from those who have or will set their feet on the road to professional salvation.

There are few things more fatiguing than the habit of indecision in small matters.—ERNEST WOOD.

Studies in Government

A NUMBER of investigations of the predicament of the medical profession have been made during the past few years, but the trouble with them has been that they were conducted by individuals or groups that had axes to grind and arranged their "studies" and statistics in such a way as to prove whatever point they started out to prove. The general run of physicians have never been honestly consulted and the published findings of the investigators have never expressed the consensus of the profession.

As a matter of fact, medical men in general have only a very hazy idea of what is really needed, and the discussions on the social aspects of medicine have developed more heat than light.

It now appears that the experienced physicians of the United States are being given an honest chance to register their considered opinions as to what changes, if any, are actually needed in the present social setup, in order to produce the best results, for the people and for the doctors.

The American Foundation Studies in Government has sent out circular letters (not the usual banal questionnaires), asking the physicians, who have had a chance to develop intelligent opinions on the subject, for a free and frank statement of what they think is wrong and what ought to be done about it.

We can hardly blame those who may have neglected this opportunity to speak their minds, because, heretofore, such information as they may have furnished to various organizations has been used to turn grindstones; but this undertaking appears to be *bona fide*. It has been investigated by the officials of the *New York State Journal of Medicine*, the chairman of the bureau of medical economics of the American Medical Association, and others, who report that these people are sincerely trying to find out what the situation really is and how it can best be remedied. They have no preconceived ideas and nothing to foist upon the medical profession, and their sole object is "to investigate the degree to which government may wisely serve its citizens within the limits of the parliamentary system."

We, therefore, advise such of our readers as may have received this circular letter to seize this unprecedented opportunity to unbosom themselves and to reply to it as fully as they can, giving facts, figures and sound and well-considered opinions, which will enable the Foundation to arrive at the truth, if this be possible, and thus, perhaps, lay a rational foundation for action which may help those who need assistance, without ruining the glorious profession which has done so incalculably much for this nation and for the world.

Men are mostly inarticulate. They attend lectures and read books to find their own thoughts.—ERNEST WOOD.

Superphysical Research

FOR a number of years, the students of those natural phenomena which lie outside of the domain of the ponderably physical have been urging the orthodox scientists to do a little investigating along superphysical lines before they reject and sneer at the findings of the equally scientific psychic researchers, so-called. One would imagine that the very spirit of science would preclude prejudice, but so far it has not done so, except in a few rare instances where truly great men, with open minds, have taken up such studies—and been jeered at for their pains.

Now it appears that a more or less recognized scientific investigator, working in an orthodox atmosphere, is seriously attacking some of these problems in a way that may have weight, even with some of the hard-boiled materialists.

It is true that Dr. Joseph Banks Rhine, who is working at Duke University, is now experimenting only with some of the more simple, superficial, and partially recognized superphysical manifestations, such as telepathy, but if he succeeds in producing results which can be reduced to the tables and graphs which seem to be the only material which will hold up the rather unenterprising mind-stuff of the superorthodox ones, he may possibly tackle some of the more involved and difficult problems which still urgently call for the sincere and unbiased investigation which they have not, as yet, at all generally received.

In this connection, it is well to remember that, in this utterly law-governed universe, there can be nothing *supernatural* (outside of natural laws), though there are many fields which are still *supernormal* (outside of the present range of general comprehension). The radio and television were in this latter category a generation ago; and it is entirely reasonable to believe that, within another generation, the laws of telepathy and clairvoyance may be as well recognized and commonplace as are those which govern radioactivity.

When such an outstanding scientist as Alexis Carrel can and will write and publish such a book as "Man, the Unknown," it ill behooves men of far lesser endowments to cock a supercilious eyebrow at the conclusions of those whose vision is wider and stronger. In a country of blind men, one who can see would be regarded as an abnormal visionary, or perhaps as a lunatic.

We will do well to watch the efforts that young Dr. Rhine is making with his queer looking cards. He *may* be building history and an imperishable fame.

The mind thinks, but the soul knows.—WILL LEVINGTON COMFORT.

"Born Criminals"

THIS issue contains a thought-provoking article on "Juvenile Crime and Delinquency," which it behooves every physician, as a potential educator of the public in matters pertaining to physical and psychic health and disease, to study carefully.

We feel impelled, however, to take issue with some of Dr. Dorland's statements, particularly as regards "born criminals" and the innate anti-social tendencies of all children.

It was, as we remember, Lombroso, who first promulgated the idea of the "born criminal" and to the best of our knowledge and belief, this theory has been discarded by most thoughtful psychologists, except, perhaps, as this term might be applied to those who are born into an *environment* where crime is so common that it is not looked upon with aversion and may, therefore, be considered as a part of the normal activities of life.

It is well that we should always choose our words carefully and the term, "anti-social," implies a greater or less degree of *conscious* striving against the general welfare. This, we maintain, is not the case with normal children who have been reared with a reasonable degree of intelligence and sympathy. The child is an undeveloped human soul, who has not learned the restraints which are necessary in a successful community life. As such, it may be considered *asocial*, if one please, but certainly not, in the vast majority of cases, anti-social.

The normal child, whose parents are sufficiently adult, psychically, to treat it with some measure of restraint and understanding, and not overwhelm the poor little thing with a flood of senseless and selfish "don'ts," is just as apt to say "yes" as "no" to any suggestion that may be made to it.

NEXT MONTH

Dr. Edward S. Pomeroy, of Salt Lake City, Utah, will describe and comment upon the procedure of electro-resection of the prostate.

Dr. Lane B. Kline, of Newington, Conn., will present the technics of the three principal operations performed on the stomach.

Dr. J. Ivimey Dowling, of Albany, N. Y., will set forth his ideas regarding focal infections.

COMING SOON

"Perinephritic Abscess in Children," by Winfield Scott Pugh, B.S., M.D., New York, N. Y.

"Hydrochloric Acid in Surgery," by M. A. Long, M.D., Rosita, Coahuila, Mexico.

The trouble is that most parents and teachers forget that *children are people* and assume that, during their first five years, they are wholly lacking in observation and understanding. This wholly false assumption has resulted in wrecking the lives of many children who otherwise might have become happy and useful citizens.

Children are almost unbelievably plastic and responsive, and they begin to mold themselves to fit their environment almost with their first breaths, so that their chance for a successful life may be destroyed before they are two years old.

Criminals and delinquents, like the neurotics and psychoneurotics which many of them are, are *made*, not born, and the factors in their fabrication are ignorance, stupidity and selfishness on the part of parents, teachers and people in their more or less direct environment.

The way to the solution of this problem lies in the direction of *education*, first of parents and other leaders, and through them of the children; also in the acceptance and promulgation of ideals of beauty, usefulness and cooperation, so that these will displace and crowd out (as they always will, if given a chance) the baser standards which now seem to be all too common.

In this tremendous and vital work, the physicians should be leaders and exemplars, as well as teachers; and if they neglect this glorious opportunity, they will be called to account for that sin of omission, sooner or later.

Storm Wonder

Ropes of flame hoist up the sails of thunder.
Rain-soaked wind bends down the dripping trees.
I must stretch my soul to catch the wonder
Booming, flashing over me on nights like these.

G. B. L.

LEADING ARTICLES

Occlusion of the Mesenteric Blood Vessels

By E. H. Wood, M.B., F.A.C.S., Ottawa, Ont., Can.

MESENTERIC occlusion is not the rare condition it was originally thought to be. The more we know of it, the more cases we recognize. The severity of the attack, with the large percentage of fatal results, combined with the difficulty of making a diagnosis, is a challenge which justifies this presentation. A recent case will be reported which brings out a point or two in diagnosis, and seven other cases from the files of the hospital will be outlined.

A brief outline of the condition should be sufficient introduction. It has been known since 1847, as a pathologic entity. Clinically it received little or no attention until 1875. It is surprising to find that, in many modern treatises on surgery, little or no mention is made of this interesting disease. However, current literature has contained many reports of cases and reviews of the condition. In the preparation of this paper I have read some 27 articles reporting, in all, 107 cases, with 22 recoveries. These, with the 8 fatal cases herewith reported, would give, in this series, 115 cases and 22 recoveries, or 19 percent. This is a bit better than the average. In other series, from 10 to 25 percent recoveries are recorded. In one series of 500 cases studied, only 35 recoveries were noted (7 percent).

In making this study one is impressed with a few points which I should like to bring out: (1) The age of the patient was usually between 20 and 60 years (the youngest patient studied was 6 weeks old); (2) the distinction between arterial embolism and thrombosis, and between thrombosis of the artery and the vein.

Embolism occurs in the arteries—more frequently in the superior than in the inferior, in a ratio of 40 to 1. The sources of the emboli are more commonly vegetations from the valves of the heart (atheromatous plaques), mural cardiac thrombi, and thrombi in aneurysms. A piece of solid material having broken free from one of these sources and, travelling down the abdominal aorta, having passed the openings of the vessels going to the head and upper extremity or having arisen beyond these openings, encounters no large branch until it reaches the superior mesenteric artery. Hence the comparative frequency of embolism of this artery. The size and location of the resultant intestinal infarct depends on the size of the embolus and on which of the branches it happens to plug.

The onset is that of a severe abdominal crisis, with acute pain and the trend of symptoms one would expect from shutting off the blood supply of a shorter or longer section of the bowel, and the resultant cessation of function of this part of the bowel, probably followed by gangrene. The pain is frequently such that it is not controlled by morphine. There is little tendency to the establishment of collateral circulation and the condition is urgent, demanding keenness of diagnosis and speed in action.

In the series reviewed, one could not help being impressed with the few preoperative and preautopsy diagnoses. Much could be said of the differential diagnosis: some patients have diarrhoea and some constipation; many have blood in the stool, a few none; vomiting may or may not occur; the leukocytosis may resemble that of acute appendicitis; and altogether the picture may be very confusing.

However, given a patient with a history of the sudden onset of an acute abdominal crisis, with pain, signs of gastro-intestinal involvement, and a possible source of embolism, be on the lookout for mesenteric embolism.

Diagnosis

There are one or two points which my most recent case brought out that may be helpful in arriving at a correct solution of the problem. The comparative lack of peritoneal involvement, in spite of a marked leukocytosis, should make one suspicious. The changes are going on within the wall of the gut, and while there is considerable leukocytic reaction it is evident that there is yet, in the early stages, little or no infection of the peritoneum. It is in this early stage that diagnosis is of value.

The second point relates to the formation of a tumor mass. This does not always occur, but in the cases wherein only a short section of bowel is affected, the infarction of the

bowel is more prone to produce a palpable mass. Morphine is required to relieve the pain and, while the patient is relaxed by the morphine, careful palpation of the mass may reveal that it has a wide excursion in the abdominal cavity. This is due to the length of the mesentery. Few if any other conditions will give this sign, and when present it would appear to be diagnostic.

A third point also refers to the tumor. The percussion note over the mass was distinctive. It was between that heard over a bowel moderately filled with gas, and that over a solid or cystic tumor, and is explained by the fact that the tumor is a thick-walled cavity, owing to the extravasation of blood into the bowel wall, which contains air and fluid. The pitch and quality of this note will vary in different cases, depending on the thickness of the wall and the varying proportion of air and fluid within the lumen of the infarcted bowel. However, the percussion note over the tumor produced by embolism of the mesenteric artery should be distinct from that of solid or cystic tumors and from that of the surrounding bowel.

Collateral circulation may develop and save the situation, even in cases of embolism. However, this is rare.

Types and Causes of Thrombosis

Arterial Thrombosis is caused by disease of the artery itself, with roughening of its intima, injury to the artery from trauma, pressure on the artery from adjacent tumors, and possibly the extension of the thrombus from an adjacent aneurysm.

In thrombosis the onset is more gradual, with colicky pains and ischemic signs. There is more possibility of collateral circulation and recovery is more hopeful. One might be tempted to temporize in this type, particularly as the diagnosis is still more obscure, if possible.

Venous Thrombosis. Involvements of arteries and veins are in the ratio of 5 to 1. The cases of venous thrombosis are the most tragic. They tend to occur in otherwise healthy and robust individuals, probably in the prime of life. Anything that may injure or infect the vein can produce thrombosis. Food poisoning is an appreciable factor. It occurs after various abdominal operations in which the veins may be injured (as the appendicular vein in appendectomy), after pelvic operations, particularly with many adhesions, and after a miscarriage. Care should be taken in handling and packing off the bowel during a laparotomy, as injury at this time may cause thrombus formation later. Spinal anesthesia should be helpful in lessening the number of cases. The relaxation is so satisfactory as to practically do away with the need of packing-off sponges, self-retaining retractors, and similar sources of trauma.

Venous thrombosis is prone to occur as the result of trauma associated with a strangulated hernia and its reduction. Volvulus and intussusception, in themselves, cause sufficient trauma to produce thrombosis, either preoperative or postoperative. These cause *ascending venous thrombosis*, wherein the thrombus forms in the venous radicals and extends up towards the main trunks. Other conditions may cause *descending thrombosis*, from the portal vein down, in which signs of portal occlusion may be the outstanding picture. This may occur after splenectomy, as the result of trauma to the portal or splenic veins from external force or operative accident, and from affections of the organs or tissues surrounding these veins.

Infections, either local or focal, may cause or contribute to the cause of either type of thrombosis. In reading case reports, one notices many cases wherein the only causative factor appears to be some local or focal infection, such as an appendicular abscess, pyorrhea, etc. One of the cases herein reported is that of a young woman with a history of a gallbladder operation some four months previously, and recent dental infection, in the form of an apical abscess, followed by extensive venous thrombosis. It is difficult to evaluate these two causal factors, but the reasonable conclusion is that they were jointly responsible for the thrombotic condition.

In ascending venous thrombosis the development is usually comparatively slow. Collateral circulation is favored, and if the area involved is not too extensive, the circulation may be re-established and function maintained with complete recovery, probably without a diagnosis ever having been made. Some case reports cover instances with rather extensive, slowly-developing venous thrombosis, proved at operation, in which recovery has taken place without resection. However, in *descending* thrombosis, the only hope must lie in removing the thrombus from the portal vein, and this seems too heroic.

Treatment

Early laparotomy is indicated. This confirms the diagnosis and gives an opportunity to do something to relieve the condition before gangrene and peritonitis have developed. Should the collateral circulation be sufficient, nothing further should be done. If the circulation of a section of the bowel be shut off, resection is in order and, if the patient's condition does not justify immediate anastomosis, then the two ends of the resected bowel should be brought out through the wound and stitched there. Anastomosis may be carried out later, when the patient's condition justifies it. The V-shaped section of mesentery attached to the affected bowel should be removed at the time of resection.

Embolectomy is gaining some notice of late, and cases of arterial embolism of the mesentery, treated early enough, would seem to present a very useful field for this recent surgical maneuver.

Thrombo-angiitis obliterans may produce occlusion of the mesenteric arteries, just as it does in those of the extremities.

Case Reports

Case 1.—Mrs. W., age 88, an exceptionally active woman for her years, had a moderate general arteriosclerosis with hypertension (blood pressure, 170/100).

About 9 A. M., on the day of admission, she complained of acute pain in the lower abdomen, coming on suddenly. She was given morphine, ¼ grain (16 mg.) at once, and this was repeated in 3 hours, which controlled the pain fairly well. She vomited twice and her bowels moved twice during the day, with no blood in the stools.

When seen at 4 P. M., the abdominal condition was as described in the text, with a mobile tumor giving a peculiar percussion note, etc. Her pulse and temperature were normal; leukocytes, 17,500; polys. 85 percent. The *diagnosis* was a cyst (probably ovarian), with obstruction to its blood supply (probably a twisted pedicle). Laparotomy was performed at once, under spinal anesthesia. There was considerable bloody fluid in the peritoneal cavity. The mass consisted of 18 inches of markedly engorged, infarcted lower ileum. Resection and lateral anastomosis were carried out. The patient died within 24 hours.

Case 2.—A girl, aged 12, had a gangrenous appendix removed three years previously. Since then her health has been good.

The present attack came on suddenly during the early morning of the day before admission. There was a sudden severe pain in the epigastrium, accompanied by vomiting. There was some relief from morphine by hypodermic injection, and her bowels moved freely with enemas. Pain persisted and, in a few hours, was located in the right lower quadrant. On the morning of admission there was general abdominal rigidity and tenderness; the vomiting continued and became greenish; heat and counterirritation gave some relief. The pulse, on the second day, was 110; temperature, normal; enemas now were ineffectual. At night the temperature was 100° F.; pulse, 120; respiration, 32. She vomited all night and could retain nothing by mouth or bowel. The leukocyte count was 18,050; polys. 82 percent; severe abdominal pain was not controlled by morphine; no definite diagnosis was made.

At operation, on the afternoon of the third day, 8 inches of the terminal ileum were found to be gangrenous. There is no note in the record as to fluid in the peritoneal cavity. The gangrenous bowel was extraperitonealized. The child died on the third day after operation.

Case 3.—G. H., age 21, a nurse in training, never very robust, had an appendectomy five years ago, and plication of the cecum, cecopexy, and cholecystostomy four months ago, followed by a good recovery, with relief of indigestion and chronic pain in the right abdomen. There had been right-sided menstrual pain, with nausea, for some years. She had a tooth extracted for apical abscess five days before admission.

On March 20, while menstruating, she was awakened by severe, left-sided abdominal pain, low down, and vomited shortly after; the pain was relieved by morphine and atropine, but the vomiting continued, once or twice a day, with lessened pain, controlled by codeine, for five days. On the sixth day the vomiting increased and became fecal in character. The abdomen was full and tympanitic, with free fluid in the peritoneal cavity. *Diagnosis*, intestinal obstruction.

Laparotomy, performed on the seventh day, showed "several feet of gangrenous small bowel, not distended," and a large amount of bloody fluid in the abdominal cavity. Resection was not attempted, as it was thought that the loss of so much bowel would be incompatible with life. The patient died on the sixth day after operation.

This brings up the point of how much bowel may be removed. A record of operative mortality shows that, in 58 cases in which more than 200 cm. were removed, 48 survived the operation. In one case, in which 540 cm. were removed, the patient lived for 2½ years, and then died of inanition. Another patient, from whom 400 cm. were removed, made a good recovery and is well; while removal of 284 cm. caused death from inanition in another case; and the loss of 192 cm. in still another resulted in marked indigestion. The diet, after large resections, should be restricted in fats but rich in carbohydrates. Dr. J. Wulsten reports the successful treatment of thrombosis by resection of the entire small bowel in one case.

The following cases are from the hospital files and are mentioned in brief.

M., age 18, died 2 months after operation for gangrenous appendicitis. Autopsy showed extensive mesenteric venous thrombosis, not diagnosed ante mortem.

M., age 21, died a few days after operation for gangrenous appendicitis. The appendix tip was buried in the root of the mesentery. Autopsy showed extensive thrombosis, probably venous, not diagnosed ante mortem.

W., age 82, who had had a previous cerebral embolism, died five days after the onset of acute abdominal symptoms. Operation showed extensive mesenteric embolism of the ileum. Nothing was done at the operation. Not diagnosed, preoperatively.

W., age 78, arteriosclerotic, died 3 days after an operation which revealed 2½ feet of infarcted bowel, not diagnosed and not resected. The patient experienced very little pain.

M., age 16, had an operation for gangrenous appendicitis 4 years before. Autopsy showed extensive venous thrombosis of lower ileum, but not diagnosed ante mortem.

180 Metcalfe St.

Juvenile Crime and Delinquency*

By W. A. Newman Dorland, M.D., F.A.C.S., Chicago

JUVENILE crime and delinquency constitute a great sociologic problem, equalling or exceeding in magnitude the cancer question in medicine. Never before in recorded history has there been such an era of juvenile crime as this country is now experiencing. There is a cause for everything and there must be a cause for this condition. Each one would probably arrive at a different conclusion as to the actual cause of this pandemic of juvenile crime, but it is worth while to consider the possible bearing of the peculiar age, the so-called "jazz age," through which we have been passing since the advent of the Twentieth Century, but which fortunately now seems to be waning.

The jazz age has been characterized by grotesque distortions of dancing, music, literature, art and thought. There has been a reversion to primitive types in all these lines of recreation and endeavor—to the tom-tom of the aborigines, the crude drawings of prehistoric men, as demonstrated by the cubists, and the over-emphasizing of the sex theme in dancing, music and literature. To this must be added the decadence or total abolition of religious influence; the folly of national prohibition, with its evolution of the scofflaw, the bootlegger, racketeer, gangster and kidnaper; the unbridled passion, brutality and legalized murder of the world war; and the poverty, unemployment, suicide and crime of the world-wide economic depression.

Into this dismal background of moral, religious and intellectual decadence, a whole generation of young people has been born with little, if any, knowledge of the good things that were. Is it not probable that much of the deterioration in the lives of the young people of today can be traced to the pernicious influence of the time? At any rate, the fact remains that the old or middle aged criminal of former days has been largely replaced by the young criminal of sixteen to twenty-eight years. It is interesting to refer to the recent statistics on this subject, as given by expert sociologists of the country. Briefly, these figures are as follows:

Crime Statistics

There are today one million "dyed-in-the-wool" criminals in the United States, 61,000 of whom are in Illinois. In 1923, 325.1 persons out of every 100,000 were committed to prison. This rate is greater than that of any single cause of death. It is 1.85 times as high as the death rate of heart disease, the most common cause of death; and 3.63 times as high as the cancer death rate.

The cost of crime in the United States is appalling, amounting to over thirteen billions of dollars annually. This is more than double the legitimate cost of running the government, and six times as much as is spent in education.

Statisticians tell us that the criminals are recruited from only about two percent of the juvenile population. This means that one out of every one hundred children in Illinois is a potential criminal or delinquent; that is, that more than 44,000 children in Illinois today are possible murderers, bandits, burglars, swindlers or other form of criminals. At least 200,000 children are dealt with each year by the courts of the land on delinquency charges. The criminal age is from sixteen to twenty; the difficult age to control, from fourteen to fifteen. Most of the offenders are boys, in the proportion of eight to one girl. Juvenile crime, therefore, is mainly a boy problem.

Since only two percent of children go wrong, and 98 percent are law-abiding, crime must be regarded as a pathologic mental or moral condition. The normal healthy mind is law-abiding; it turns away from, not towards, crime. What is the reason that the two percent show a tendency to crime?

There are certain antisocial traits in every child, whether the offspring of prince or pauper. Thus, in every infant, there is implanted a negative quality; it will say "no" to every suggestion, rather than "yes." In every child is implanted a brutal trait; it will strike or pinch. These antisocial tendencies must be, and usually are, controlled in early life. Great cataclysms, war, pestilence or fire, are apt to cause a relapse, in older people, to the brutal, antisocial tendency—the *"sauve que peut"* of the Napoleonic rout. Moreover, there has arisen in recent years a tendency to acclaim the brutal element. Great conquerors, who have slain millions, are regarded as heroes, as are also prizefighters who have vanquished the most antagonists and the bandits who have slain the greatest number of policemen. This must necessarily exert a deleterious effect upon the young mind.

Causes of Crime

To this tendency to crime, in the two percent of the youth of the land, there must be added the influence of certain contributory causes of crime, all of which have played their part in the development of the era of juvenile crime. Briefly, these are as follows:

1.—*Heredity:*—This is a powerful influence for good or bad. As there are some individuals who are physically strong and who

*Abstract of an address delivered before the Medical Round Table of Chicago, Nov. 12, 1935.

show a marked resistance to the encroachment of germs, so there are many who have a sound mental and moral make-up and a natural resistance to the criminal tendency. The famous Jonathan Edwards family is the noted example of this group. On the other hand a bad heredity is a notable contributory cause of crime, as is exhibited in the notorious Jukes family.

2.—*Environment:*—Almost everyone is influenced materially by his surroundings. Naturally it may be expected that boys raised in the slums and among the viciously inclined will be more apt to be started on the downward path than are those who are reared under more favorable circumstances.

3.—*Defective Parental Administration:*—Many parents are utterly incompetent when it comes to the training of their children. Home influence is a powerful agent for good or bad. Often there is a notable lack of friendly relations between boys and their fathers, as well as a total inability on the part of the mothers to control their children. The tendency of families to live in flats and hotels has resulted in a decline of the American home, which seems to be rapidly becoming a thing of the past. As a result, the spare time of the child, which should be spent largely in the home under parental management, is almost altogether spent in the street among questionable companions.

4.—*Decline in Religious Fervor:*—There is no doubt that this is a day of religious decay. This may be attributed to the influence of the jazz age; the universal use of the radio, day and night; the growth of the automobile industry, which has had a decided effect in cutting down church attendance; and the commercialization of the church itself. It is a deplorable fact that only one-eighth of the children of Illinois receive the *weekly* services of the Sunday School. Brandon states that "the average boy in the State of Illinois receives less than ten hours a year of religious and moral instruction from the church"; and that "the church places great value upon human life, while underestimation or total disregard of the value of human life and personality is a most distinctive characteristic of juvenile crime."

5.—*The Automobile:*—The automobile has been a great aid in perfecting criminality. It conceals the offender, in many instances, by facilitating his rapid removal from the site of the crime. This is probably its main contribution to criminality. Automobile stealing is the most prevalent juvenile crime today, and fifty percent of these thefts are committed by boys under 21 years of age, while 85 percent are committed with the intention of making an illicit profit. In this evil the boys are greatly helped by the so-called "fences," who purchase from them, for small sums, the stolen tires and automobile accessories. This phase of criminality unfortunately has been materially aided by the false humanitarianism shown by weak judges and weak juries in dealing with these youthful offenders. Speeding is almost entirely a crime of young people, and it has become a most prolific cause of accidental death. In 1933, 30,500 deaths from this cause occurred in the United States; in 1934, 35,000 deaths; and so far in 1935, there have been recorded over 36,000 such deaths.

6.—*Objectionable Movies:*—There can be no doubt that much of the juvenile crime can be traced to the influence exerted upon the youthful mind by objectionable moving pictures. Many of these portray, in detail, methods of committing crime, and thereby actually instruct in evil. The same may be said of many of our newspapers, which even at times publish diagrams showing how a bank theft or other crime was accomplished. Certainly it is true that the movies exert a powerful influence upon patterns of behavior and ideals of conduct. The "flapper" and "sheik" types are direct creations of the movies. This influence will not be wondered at when we realize that the nation's motion picture audiences number 77 millions weekly, of whom over 11 millions are children under fourteen years of age (Payne Fund Research on Movies). Children who attend the movies with their parents are better adjusted to these conditions than are those who attend alone or with others than parents.

7.—*Mental Deficiency:*—Mental deficiency exerts comparatively but slight effect upon juvenile criminality. Not every child criminal is mentally deficient—far from it. On the contrary, many of these offenders are remarkably alert mentally, and these usually constitute the gravest offenders. The fact is, only two percent of juvenile criminals, that is, one in 2,500 of the general juvenile population, are mentally deficient.

From the study thus far made of juvenile crime and deficiency, the youthful offenders may be grouped into three classes: (1) Those not intellectually inferior, but who are criminally inclined—the two percent already mentioned, who may be termed "born criminals"; (2) those showing varying degrees of mental deficiency—the socalled "morons," who have never grown up mentally, as determined by psychologic tests; (3) those who are criminals as the result of mental deterioration due to disease—a comparatively small class. These brain defects may result from brain injuries due to traumatism, to degeneration of the brain substance from disease, or to arrested hydrocephalus, brain abscess or syphilitic disease.

These classes may all be determined by the proper application of psychoanalysis and

psychiatry, which deal with mental disorders and abnormal behavior.

It is interesting to note that psychiatric court service was first instituted in this country in 1909, by the appointment of Dr. William Healy as juvenile court psychiatrist in Chicago. The method has been carried to the greatest degree of perfection in Massachusetts, where the Briggs Law is in operation. Under this law, two psychiatrists are appointed by the Department of Mental Diseases of the State, to investigate each youthful offender. As a result, Massachusetts has the lowest rate of youthful crime of any state in the Union.

The Remedy

Such is the condition. The question now is to find the remedy. It is a sociologic problem which naturally divides itself into three parts: (1) The prevention of the development; (2) the treatment of the first offender; (3) the treatment of recidivism.

The symptoms which are the forerunners of delinquency are: chumming with poor associates; the frequenting of poolrooms and low dance-halls; the forming of street gangs; truancy; gambling; and pilfering from fruit stands and grocery stores. These tendencies must be dealt with promptly and firmly.

Hitherto there have been three main elements by which criminal tendencies have been controlled: the home, the church and the school. Unfortunately, these elements are now passing through a period of depression. The home, as I have suggested, is passing away, at least in the desirable form with which we have been acquainted; the church has lost much of its influence, for reasons which seem to be beyond our control; and the school has passed largely under political management, to the detriment of the educational system.

The pernicious use of the children's spare time may largely be successfully combatted by the institution and proper management of the various public welfare activities. Eradication of the slums and substitution for them of playgrounds, fully equipped, is a large step in the right direction. This can be aided by providing public music, both popular and classical, and by enforcing the closure of objectionable poolrooms and dance halls. The proper schooling and education must be insisted upon and made attractive. The various juvenile organizations, such as the Boy Scouts, Girl Scouts and allied associations, are most valuable in awakening the necessary interest in healthful occupations and establishing a feeling of brotherhood and the proper social relationship.

The first offender is a problem all to himself. In order to segregate him and remove him from contact with the hardened criminals, the Juvenile Courts have been established. These have proved most valuable. These misguided children should not be sent to "reform schools," and especially should truancy not be so treated. These institutions have not given good results on the whole. The putting of the offenders on probation, in charge of their parents or other reliable citizens, is a most excellent practice.

The chronic offender or recidivist must be confined in some one of the penal institutions, *where he should serve out the full time of his sentence.* Personally, I am not a friend of the parole system. Many of our most atrocious crimes have been committed by parolees. These unfortunates may have become soured by the pernicious activities of the police who hound them, even as Jean Valjean of Hugo fame was. The public searching and "frisking" of these youths and the application of the "third degree" are most reprehensible and should be frowned upon by the legal authorities and by the public at large. It is the duty of the police to hold the suspects for proper investigation by the authorities and not to endeavor, by brutal means, to enforce a confession of guilt. The practice is pernicious in the extreme.

It is not my purpose, nor within my power, to offer a solution for this highly complicated problem, but even so I feel that the first essential is to get the various details and factors of the problem clearly before us, so that we may study it intelligently. Moreover, I feel that this problem will never be satisfactorily solved without the active and earnest assistance of a large number of well-informed and thoughtful physicians, because its roots lie in the soil of the physical, emotional and mental constitution of mankind.

185 N. Wabash Ave.

THE FAMILY DOCTOR

The family doctor is the best health protector. He who studies to become a doctor has in his heart a love for humanity. If he gets over it he usually becomes a specialist (I am myself an eye, ear, nose and throat specialist). The family doctor is the greatest of humanitarians and always has been. So let us doff our hats to this ever faithful servant and hasten to pronounce this much belated eulogy before our eyes begin to darken and our tongues shall speak no more.—FRANK G. MURPHY, M.D., in Nutrition and Health.

Diverticulum in the Sac of an Inguinal Hernia*

(A Case Report)

By Lane E. Kline, M.D., F.A.C.S., Newington, Conn.

THE sac of an inguinal hernia may be completely empty at the time of an operation. At times some intraperitoneal fat may encroach into the lumen, which may or may not be of sufficient size to justify reducing by dissection. A loop of intestine is seldom found, unless incarcerated or adherent, and of these the ileum is the most usual part; seldom the colon or cecum. Large masses of omental fat are sometimes found, and appendices epiploicae are often encountered. Once in a great while the vermiform appendix appears in the sac, on the right side. All these have been found in my experience. Others have reported the presence of the bladder, fallopian tube, ovary, and even the stomach in hernial sacs.

I recently encountered a diverticulum of the "iliac colon," adherent to the sac of a left inguinal hernia. In a survey of the literature I have failed to find a similar case.

Report

Case 7288: White, American, age 61, machinist, weight 154 pounds, well developed and nourished. Mother died at age 83; father died at age 65, said to be due to painter's colic; otherwise the family and personal history were without interest. He had never been ill previously and never had required the services of a physician. He used neither drugs nor alcohol but smoked a pipe. No injuries and no operations recorded.

Appetite and digestion were good, with regular bowel action; temperature, pulse and respiration were normal; blood pressure: systolic, 150; diastolic, 100; blood study: 4,500,000 erythrocytes; leukocytes, 5,000, with a normal differential count; hemoglobin, 90 percent. Urine: A faint trace of albumin at one test, negative at one; scattered red and white blood cells at one test, negative at one; rare pyriform epithelial cells at two tests; no casts. Wassermann and Kahn tests negative; heart and lungs essentially negative on physical examination.

On admission he stated that he had never been accustomed to laborious work, but because of the necessity of the times he had shoveled coal six months before and, while so engaged, he accidently fell and experienced a sudden, sharp pain in the left inguinal region, where sometime previously he had noticed a slight swelling. Following the accident he described the pain continuing as a dragging sensation, amounting to actual pain on exertion, exercise, cough or strain. He now noticed that the swelling would disappear on lying down, to reappear when up, and would increase in size on coughing.

Examination revealed a typical left inguinal hernia, of the oblique type, complete and

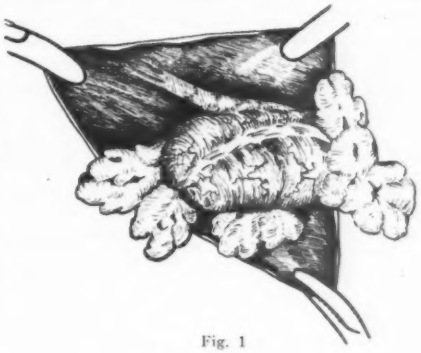

Fig. 1

reducible. Otherwise the abdomen was negative.

Operation: Under spinal anesthesia, supported by the preoperative injection of morphine and Sodium Amytal, by mouth, the spermatic cord and its structures were isolated and protected. The sac, which was rather large, redundant and thickened, was dissected free and opened. It was found to contain a quantity of adherent fatty material, which was dissected free. Near the neck of the sac I encountered some rather dense adhesions, which terminated in bands and connected with a tubular-like structure resembling an appendix. By pulling on this, the iliac portion of the colon was delivered. The structure was found attached to the mesial side of the colon and beyond the longitudinal band. It was now regarded as a diverticulum and crushed near its origin, doubly ligated and divided. The proximal end was closed with an inverting suture. The distal portion, on removal, was found to be a tubular structure, free of contents, lined with a glistening surface, and appeared to be composed of only two coats—serosa and an atrophic mucosa. One layer could be caused to glide upon the other. The proximal end was not explored, but apparently it had been closed some time prior to the operation, probably due to tension secondary to fixation of the distal portion which resulted. Digital exploration of the colon revealed nodular and pouch-like projections and the walls were thickened and indurated, suggestive of carcinoma.

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The postoperative course was without incident. Following a period of convalescence, a barium enema x-ray study revealed numerous diverticula of the descending and transverse colon. No evidence of carcinoma was found. Incidentally, the roentgenogram revealed three large gallstones and calcification of the gallbladder wall.

Comment

This patient who, according to his own statement, had always enjoyed good health, yet had at least two major pathologic conditions: cholelithiasis and diverticulosis. The hernia had been present certainly more than six months and gave evidence of considerable inflammatory disturbances. The cholelithiasis, while not necessarily causing colic or obstruction, certainly would be expected to produce at least some digestive disturbance. As to diverticulosis, we know that, in the majority of cases, no symptoms are produced. However, in this instance, at least one of the diverticula had at some time undergone a degree of inflammatory reaction sufficient to cause dense adhesions. Between fifteen and twenty percent of cases of diverticulosis, due to infection, tension or to other complications, are converted into diverticulitis, with a train of symptoms similar to appendicitis, and are subject to perforation, the production of peritonitis, abscess formation, and intestinal obstruction, all of which had been escaped by this patient.

Meteorologic Influences in the Manic-Depressive Psychosis*

(A Preliminary Report)

Emil T. Hoverson, M.A., M.D., Chicago, Ill.

FROM time immemorial the manifestations of a disordered mind have attracted the attention of all classes of people, and the mental reactions have received special study from both the etiologic and symptomatic viewpoints. In the earlier days of history the insane were regarded with suspicion and were shunned and ostracized by society; occasionally, on the other hand, they were elevated to supernatural heights because of some supposed affiliation with the gods. With the passage of time the superstitious attitude to these unfortunates gave way to a more rational view, and finally science devoted itself to the study of mental disorders. In spite of the replacement of superstition by science, and the acceptance of mental disease as a medical problem, the etiology of many of these disorders has remained a mystery.

Among the various causative agents of mental disorders, the planets were early regarded with special concern, and the term "lunacy" indicates that it was once supposed that the moon exerted a special effect on the mental processes of man. Since the movement of the planets occurs in relation to seasons, it was only logical that the seasons should also be regarded as exerting some influence on mental symptoms. This concept was maintained for some time. However, because of the lack of any definite evidence, interest in the etiology on the basis of external environment has waned, so that, at the present time, only sporadic reports appear in the literature.

In the hope that some insight into the cause of "insanity" might be gained, attention is now directed to a study of the individual's history and reactions, rather than towards mental diseases in the aggregate. In this connection the term "reactive psychosis" has been introduced, to connote those cases in which there seems to be some alteration in the social and economic environment responsible for the actual onset of the psychosis. For some reason only the social and economic aspects of the immediate environment are generally considered. It seems logical that one should consider the total environment; that is, the factors that affect the substratum of the cells themselves, together with the conditions to which these cells must react in various phases. Thus, under ordinary external environments, an individual might react normally to certain social and economic factors but, with an altered cellular substratum, abnormal responses might conceivably occur.

Cyclonic Storms

On the basis of chemical, physical and endocrine studies, it has been demonstrated that a definite rhythmical change occurs in all bodily reactions with the passage of cyclonic or meteorologic storms.[1] By a cyclonic or meteorologic storm is meant a sudden, well defined change in the barometric pressure, external temperature, ionization, wind velocity, etc. Such meteorologic storms may not be accompanied by definite "weather" changes.*

*From the Chicago State Hospital, Chicago, Ill.

*It is commonly believed that cyclonic or meteorologic storms are synonymous with the lay idea of a storm; that is, some change accompanied by definite visable changes in the weather. This is only partially true, for weather changes are usually only an indication of the preceding meteorologic states.

The relationship between human activity and the environment has often been commented upon, but always in rather general terms, and has heretofore been limited to an appraisal of seasonal effects, rather than effects of the changes that occur within a season—the meteorologic changes. It is believed that such a minute appraisal might be of value, because it is during the individual meteorologic disturbances that the different chemical, physical and endocrine changes are observed to occur. In this connection various terms have been introduced.†

In a previous report[2] it was postulated that when cyclonic storms bring about the appropriate chemical, physical and endocrine changes in a susceptible person, and when there exist, in addition, other as yet unknown factors, a "mental breakdown" of that individual should be expected. These facts have been considered in detail and the reader is referred to the more exhaustive study.[2] In the present study, data are again presented in proof that the meteorologic environment plays a definite part in the onset of mental disorders.

As is the case in the mental field, so also in the sphere of somatic conditions seasonal influences have repeatedly been commented upon, but the investigations have been limited to an appraisal of total seasonal effects, and not of the individual meteorologic changes occurring with the season. Distinct alterations in metabolic activity occur at different times of the year. Thus, hair grows more rapidly in the spring; the pulse and respirations are higher in the winter; juvenile tetany is most common in January and February; and the condition known as achlorhydria is most frequent in the autumn and spring. Evidence has also been presented showing that the carbon-dioxide fixation of the blood is lowest in June and highest in December.

Thus there can be no doubt that the various bodily processes change during the year; but again, the objection to previous reports is that they attribute the changes to seasonal effects. All these changes can just as well and more reasonably be explained, not on the basis of season, but on that of the cyclonic or meteorologic changes occurring within the season. It is known that the meteorologic changes occur with greater frequency and intensity in winter, less often in the spring, and still less so in the summer, with a gradual increase during the autumn months. By reference to a barograph, these variations are seen to occur with a degree of regularity. Because of this it seems reasonable to believe that the physiologic processes are conditioned by the summation of the number, severity and character of the individual meteorologic changes occurring within the season.

†A *"polar front"* exists when the barometric pressure is increased, with a corresponding decrease in the external temperature. A *"tropical front"* exists under diametrically opposite conditions—a reduction of the barometric pressure, with an increase in the external temperature.

The Weather and Human Activity

Mills[3] pointed out that definite changes in the sexual function of the female were correlated with the geographic habitation of human beings. He also stated that, if a whole population were stimulated by weather changes, some people would be overstimulated and their bodily and mental capacity to carry on would reach a breaking point. Norbury[4] observed that the maximum number of admissions of patients to State Hospitals in Illinois occurred in the March-to-June period; then dropped until October; increased through November and reached a peak; then dropped again gradually until February. He concluded that climate (the summation of meteorologic changes) was a formidable and integral part of human energy, and that the output of energy had climatic seasonal variations.

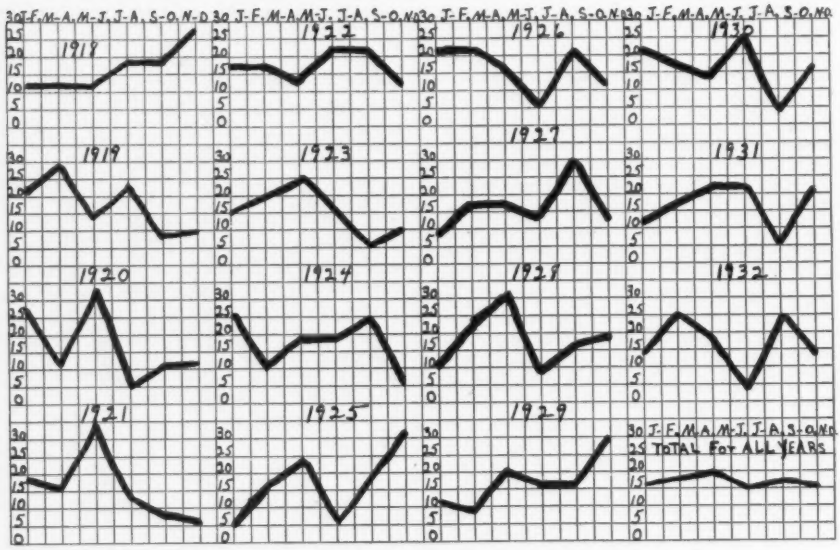
As might be expected, seasons, and in particular the changes within a season, play a definite part in the activity and reactions of man. Huntington,[5] in pointing out that there is a correlation between processes that are quite general in character, and climatic changes, concluded that the level of human energy and achievement is a function of climate. This conclusion was based upon "climate," but is that anything other than a gross expression of meteorologic conditions or states?

It appears, therefore, that there is a general agreement among workers in this field that a close relationship does exist between human activity and reactions, and the external environment, which is nothing more than the meteorologic state in summation.

The observation that the meteorologic environment plays an important part in a psychosis is not a new one. Indeed, it is not at all uncommon for a patient to have recurrent attacks, all occurring at approximately the same time of the year. Ratner cited instances of two psychotic individuals who had periodic attacks, respectively, in April and in February. In the light of present knowledge concerning meteorologic states, there seems to be a correlation between these instances and the cyclonic or meteorologic state.

Manic-Depressive Psychosis

The present study has been restricted to an appraisal of the manic-depressive group, because the episodic attacks in this group are usually well defined and present a minimum of difficulty in classification. The years 1918-1932 were selected because, during this time, or practically all of it, the same physician



Graph I:—Showing admissions by years and two-month periods.

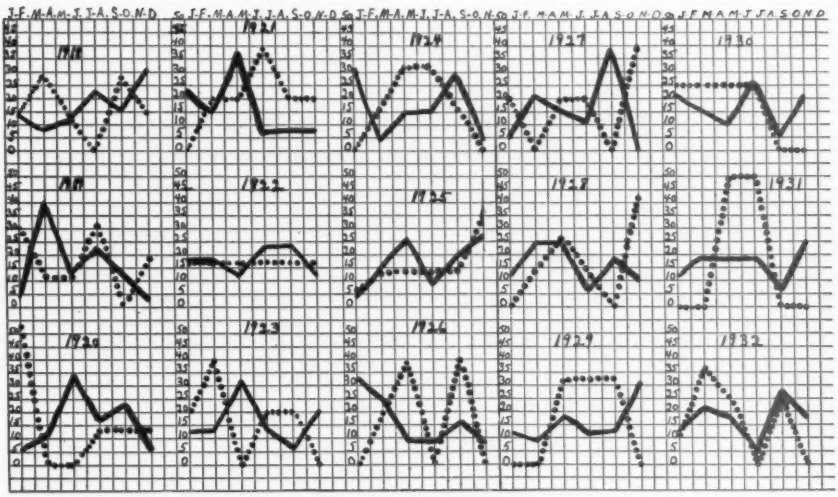
decided upon the classification, which relied always upon certain presenting symptoms. In these years a total of 422 patients of the manic-depressive group were admitted, 322 being manic, and 100 depressive in their reactions.

For compilation of the data, the year was divided, not into seasons, but into periods of two months each. It is believed that such a division made possible the inclusion of the greater number of patients having their mental onset in that particular two-month period. This could not have been accomplished had the year been divided into monthly periods. In order to obtain similar charts for all years, the percentage frequency of admissions for each year was determined, and in this manner the figures forming the basis of the graph were arrived at.

From Graph I it is clearly seen that there is no similarity in the percentage of admissions for any one period of any year. If the seasons, *per se*, were the important factor, one should expect a certain degree of repetition for each year, at least in a majority of the years considered. Thus if the winter season exerted a certain effect, this ought to be reflected in a similar increase or decrease in the admission rate for most of the years considered. Because of the lack of any uniformity, it must be concluded that the mere fact of a particular time of the year, which we know as a "season," is not definite enough to serve as a comparative basis. On the other hand, reference to the barograph of those years reveals that the seasons varied in the number of cyclonic or meteorologic disturbances which occurred in them. It is, therefore, apparent that it is not the exact seasonal classification which one must consider, but rather the number and intensity and frequency of the individual storms which were embraced in the given time of any season.

In previous studies along the lines of seasonal influences, admissions were grouped together regardless of the year, and hence, were the summations of many different seasons. Since, in general, meteorologic storms show a certain similarity, being greater in number in the winter, and least in the summer, this ought to be reflected in a total summation curve of admissions. This is actually what is observed; a gradual increase in the number of admissions from January through June, with a decrease through August. Then there occurs a slight increase in the admission rate through October, from which period it holds constant through December. It is believed that this might account for the generalization that the total seasons are, in some way, responsible for increases or decreases in admissions.

An interesting observation was made when the manic patients were considered as a separate group. The percentage frequency of admissions was again determined on both the manic and depressive cases, as separate units. In general, a definite and opposite relationship between the admissions of these two types of reactions was noted. Thus, if one two-month period showed an increase in the number of manic patients, a corresponding decrease in the admissions of the depressed



Graph II:—Showing differences in admission between manic and depressed patients, by years and two-month periods. (Note: Dotted lines show admissions of depressed patients; solid lines, those of manic patients.)

patients was generally observed. The only way that this is accounted for is either by saying that opposite conditions are responsible for one or the other form of psychosis; or that the depressive onset was less acute than the manic onset. If this were possible to determine, it might be found that the actual mental symptoms had their onset in the same period, but, because of the less dramatic or acute symptoms in the depressed type, they were admitted after a longer time of observation by those in the patient's home.

Comment

No matter what the cause or causes of mental disorders may be, the fact remains that the admission rate of patients to state hospitals shows distinct variations, both as to season and as to year. If the social and economic factors are the important ones in the actual breakdown, it should follow that the admission rates would have a certain degree of uniformity year after year. Thus one should expect to have increases or decreases, and these variations should be correlated with certain yearly economic or social stresses, as far as can be determined. It seems, then, that the social and economic factors have some part, but their rôle certainly is not the most important.

If the human body is subjected to various chemical and physical changes that occur with the passage of meteorologic storms, it follows that, at certain such times, the individual cells have an altered substratum, and the individual is less capable of reacting in his customary manner to the various objective or subjective factors. This has been shown to be so by means of a detailed analysis of a series of patients, whose mental disease onset was directly correlated with the then-existing meteorologic state. Since the meteorologic states or disturbances occur with a certain degree of irregularity, and it seems as if mental disorders were correlated with these storms, then a certain degree of irregularity should be expected in the admission rates of patients to state hospitals. What, then, is postulated is that, when the meteorologic factors occur at such a time, and the other, as yet unknown, factors of insanity are operative, then and then only will the actual onset of mental symptoms be observed.

Since this material has been collected from cases recorded some time ago, and since, in the great majority, no definite date of onset was reported, only generalizations can be made. However, within the past year, I have collected, in the order of admissions, a series of cases, and in practically every instance the date of the onset of the psychosis was correlated with certain definite meteorologic changes. Because of this observation, it is believed that the variations observed in the manic-depressive patients are related, not to seasons as outlined by the calendar, but to the changes occurring within the season; that is, the meteorologic changes, when other factors are present to bring about the end-result of a mental breakdown.

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6400 Irving Park Blvd.

The Endocrines in Diagnosis

By Fred D. La Rochelle, M.D., Springfield, Mass.

ON February 15, a man, 58 years old, married, a salesman in a drygoods store, was admitted to the hospital complaining of classical acute rheumatic fever. Seven and four years previously he had similar attacks. All the joints, in rotation, were more or less involved and he said that the ailment started four days before admission. He had so much pain that he could hardly move.

The problem is: "Why has this man rheumatism?" It cannot be the climate, for his neighbors are not suffering from rheumatic fever; nor can it be his diet, for other members of his family are free from disease; again, it cannot be due to his occupation, for the other clerks in the store in which he works are free from rheumatic fever. Why is he sick and why has he rheumatic fever?

In the first place, we want to know what kind of a man our patient is, and we must go back to the day he was conceived and see what his parents were at that time. He is, from the basic physical standpoint, what they made him and, of course, could be nothing else. We can figure out his endocrine balance, and this will throw light on his original makeup.

Original Endocrine Equipment

In the first place, let us imagine a perfectly healthy, normal man at age 25, let us say. Our imaginary figure is 100 percent in every way, let us assume, and we will compare our patient with him.

The sex organs, which we know are developed by the pineal hormone, are not 100 percent; they have always been somewhat less than this, so we put down 95 percent.

The anterior pituitary, which develops brain capacity, mental control and intellect, is not 100 percent, as witnessed by the fact that this man was once in business for himself and failed and now is having a very hard time making a living. He never was and is not now a genius in any sense of the word, so we are generous when we record him as 95 percent.

The posterior pituitary was relatively high, as this man inherited from his parents what is generally called a "nervous makeup." He is and always has been an active man. The thyroid hormone was high also, as witnessed by the fact that he has always been thin—of the "razor-back" type.

The parathyroid, which makes the individual fat from the waist line up, was only 90 percent, as this man never was and never will become fat. The thyroid has always predominated over the parathyroid.

He is somewhat below normal in height (5 ft. 7 in., to be exact), so we record his thymus as 95 percent. His prostate has always functioned satisfactorily, so we record that as 95 percent; and the splenic, pancreatic and lymph hormones all rate about 95 percent.

The hepatic hormone was not so good—not more than 90 percent. There is every reason to believe that, at the time of conception, either one of his parents was suffering from some hepatic deficiency or else both were under par at that time, and this is the first clue we have as to the reason why this man is rheumatic.

The orchic hormone is recorded as 95 percent because we know that, all through life, this man has had a high thyroid activity, and this could not be so without a high orchic activity also.

This pictures fairly accurately what the parents were at the time of conception, and consequently the individual that resulted. In other words, this man was never a Rolls-Royce type; nor can we say that he came of poor stock—95 percent or thereabouts is not in any sense a poor background, as comparatively few individuals inherit more.

If we assume that our patient inherited a fairly good constitution, what has he done with it? We can estimate his present endocrine condition, for comparison.

Present Endocrine Condition

The average of the hepatic, adrenal and orchic factors we may consider to represent his present vitality.

The pineal has done its work and we can pass that by. The anterior pituitary is certainly not better than the original figure, and it probably is not quite so good, so we record that as 90 percent.

The posterior pituitary activity, on the other hand, has increased. Worry, excessive cigarette smoking and other wrong ways of living have made this go up; still it is only bordering on the pathologic (and we know that all hormones have a 15 percent leeway, hypo or hyper), so we record this as 115 percent. Any more than that would inhibit the anterior pituitary, hepatic, pancreatic and adrenal hormones, and since there is only slight evidence of that we may fairly assume that this inhibition has not been sufficient to

inhibit the normal hormones, but the hepatic, which was under par to begin with, has certainly suffered; and we have the second clue to this man's ailment.

The thyroid activity is somewhat decreased, on account of a natural receding of the orchic, so we record that as 80 percent.

The parathyroids are somewhat lower than this, as we know from the fact that this man is and always has been (and, I may add, always will be) below normal weight. The figures are 113 pounds actual weight, when a man of his height and age should weigh 143 pounds. We record this as 70 percent.

The thymus has receded with age, and we can pass that. The prostatic hormone is substantially normal for a man of his age, and again we record that as 80 percent. The spleen, lymph and pancreatic hormone we can fairly assume, from the want of symptoms, are about 80 percent of what they were at their best.

The hepatic hormone is only 60 percent; the adrenal is also 60; and the orchic (from age) is 40 percent. We add these last three factors and divide by three, obtaining the "vitality" of 53 percent, as compared with 91.6 percent at the start. The patient himself and almost any good observer would allow that this is about what the man is today; namely 53 percent of what he was at his best.

But we started out to answer the question why this man has rheumatism, and we have wandered far. We can return to more orthodox ground, and we find that his temperature is slightly subnormal and his pulse oscillates between 60 to 70. Again, this only confirms the figures given above.

Tests and Treatment

A Schilling hemogram shows 71 percent of segmented cells and the hemoglobin is 80 percent. There is slight polychromasia, anisocytosis and poikilocytosis. The urine shows a small trace of albumin and sugar and specific gravity of 1.016. Ehrlich's reaction is markedly positive, again indicating deficiency of the hepatic hormone.

Turning to the McDonagh diagnostic tests, we find the sedimentation rate is 6 mm.; the refraction index is 1.3494; the blood sugar is 115 mg. to 100 cc. (evidently the man has not diabetes); the blood plasma shows a slight amicronic haze, few particles, many giant particles, many platelets and many clumps, both moving and precipitated. The blood pressure is 120/80.

Now we can turn to the Micro-dynameter, in an attempt to find an answer to our question. The vitality is 14,000 and the oxidation test reads 16,000. Again we see that we are dealing with a low oxygenation and oxidation, which points clearly to deficiency of the hepatic hormone. The polarity test is positive 10. The high readings are over the liver, left elbow and left knee, and indicate the sites of exudates.

The treatment was not very elaborate. It consisted of a glass of warm water every half-hour. The next day the symptoms were nowhere nearly as acute as they had been, and the Micro-dynameter readings were: 22,000 for the vitality test; 25,000 for the oxidation test; and the high readings indicated an activation of the local processes. The sugar and albumin were no longer present in the urine.

On February 23, the vitality test was 15,000 and the oxidation test, 20,000. Evidently there had been some set-back. On the 24th the vitality test was 19,000 and the oxidation test, 21,000; and on the 25th, 19,000 and 20,000, the symptoms were all gone and, I may add, without giving medicine of any kind.

So, then, why has this man rheumatism? In the first place, he inherited a poor hepatic endocrine equipment—he found it difficult to oxidize all his food, so the surplus accumulated in his body and caused a toxic infiltration. He smoked cigarettes to excess and did not exercise enough, which further damaged his hormonic system, and he has had plenty of occasion to worry, which did not do him any good.

The damp weather at that time made the ground a good conductor, and part of the charge on the protein particles of his blood serum leaked into the ground. This resulted in clumping of the particles and these clumps naturally stopped in the capillaries around the joints, where there is most motion and they are most exposed to variations in climatic conditions. The warm water dispersed and dissolved the clumps and they were eliminated in the urine. A moderate diet supplied only such food as he could oxidize, and in this manner the toxic infiltration which was causing his symptoms was made to disappear and the patient is clinically well.

To recapitulate, a deficient hepatic endocrine equipment, worry, excessive cigarette smoking, wrong diet, want of exercise and damp weather give the explanation why this man had rheumatism and his neighbors did not. But some may say he had a focal infection from his teeth, tonsils or sinuses. He has none. The teeth and tonsils have been removed and the sinuses are clear. In any case, these ailments are the *result* and not the cause of rheumatism. A man with normal biochemistry never develops these ailments.

To prevent further attacks, he should stop smoking cigarettes, correct his diet, take plenty of exercise in the open, cease from worry and live in a dry climate. These, then, constitute the answer to our question and they point clearly to the cure, and that without the use of medicine of any kind.

89 Belmont Ave.

The Use of Oxidizing Agents in the Treatment of Vincent's Infection

By Don Chalmers Lyons, D.D.S., M.S., Ph.D., Jackson, Mich.

VINCENT'S infection, commonly known as "trench mouth," and also by many other names, is steadily increasing in the number of cases reported. This may be due either to new sources of contagion, or because our present methods of treatment are unsatisfactory. Today many acute cases become chronic or recur without apparent reinfection, and then require months of consistent treatment before relief is obtained. In many instances failure to obtain successful treatment in this disease is due to improper or insufficient medication.

The selection of a medicament or means of treatment of Vincent's infection should be governed by a thorough understanding of the chemical changes taking place in the tissues and those occasioned by the drugs themselves. The reactions which are brought about depend upon two things: the various chemical compositions of the drugs used, and the chemical reactions taking place in the diseased tissue. These two basic factors in medication are frequently overlooked, with the result that unsatisfactory results are obtained.

The findings of many investigators show that oxidizing agents are the most successful chemical substances which can be used locally in the treatment of Vincent's infection. There is, however, much misunderstanding in the minds of physicians and dentists as to what constitutes oxidizing agents and what are oxygen-liberating agents. The latter have been used mainly on the basis of the fact that the microorganisms which cause this disease are anaerobic in character. This reasoning, however, is wrong, because the amount of oxygen liberated against the tissues in the mouth is so infinitesimal as to be of little value.

There are many types of oxidizing agents and most of them have been used, at one time or another, in the treatment of this disease. Lyons and Coffelt[1] recently classified many of these, particularly from the standpoint of the difference between oxidizing agents and oxygen-liberating substances. In many instances an oxygen-liberating agent is not an oxidizer at all, but a strong reducing agent. For example, hydrogen peroxide, which is frequently used as a medicament in this disease, is a strong reducing agent in the presence of weak acid solutions, and is an oxidizing agent only when the solution or environment it is reacting in is neutral or alkaline. When applied to the tissues of the mouth where the diseased tissues are acid, any reaction which takes place must be reducing and therefore of little value other than from its valuable detergent properties. Perborates are similar in action.

Many of the oxidizing agents which have been used in the treatment of this disease require the presence of another compound, such as a catalyst, in order to obtain the maximum oxidation; mercuric chloride, copper sulphate, potassium chlorate, and potassium permanganate being examples. The last-mentioned requires the presence of a strong acid. Chromates have been used in the treatment of this disease, in the form of chromic acid, which is unstable. Combined with certain metal salts, such as cerium, much of the instability is overcome, as well as the caustic action of the chromous state. Cerous-ceric chromate is a very stable salt and is especially valuable in the treatment of Vincent's infection because, in a water solution, it provides its own acid medium and is therefore effective in the presence of tissue debris.

Technic of Treatment

The mouth should first be thoroughly cleansed, without vigorous instrumentation. Successful treatment depends upon several things; (1) Removal of all tartar accumulations; (2) removal or correction of overhanging fillings and faulty dental restorations; (3) elimination of all local irritations; and (4) application of the medicament to the depths of the pockets, undiluted by mouth secretions. In this respect it is very important that sloughs be first removed before medication is applied.

The use of chromic acid, cerous-ceric chromate, potassium permanganate, arsphenamine, etc., as the medicament, must be carried out carefully if results are to be obtained. The chromate, in a 5- to 7-percent solution, seems most efficient in both acute and chronic conditions. Arsphenamine is of value as an internal medicament in acute cases with systemic reactions, but there are cases on record which have developed during the administration of this drug for syphilis.

Home treatment, with the use of alkalinizing solutions and antiseptic solutions, is advised, along with a rigid program of oral hygiene.

National Bank Bldg.

1.—Lyons and Coffelt: *Dent. Digest*, 41:201 (1935).

PHYSICAL THERAPY AND RADIOLOGY

The Early Diagnosis of Cancer

CANCER is curable in the early stages; however, the early stage cannot be diagnosed by the patient, but can be discovered by the alert family physician. *The keystone of cancer control is early and correct diagnosis.*

The early signs or symptoms of cancer should be familiar to the laity. When they appear, the advice of the family physician should be sought without any delay.

When chronic ulcers of the skin become hardened, it may mean a beginning cancer.

When a pigmented mole turns black, it probably is turning into a cancer.

When keratoses or scaly elevations or warts of the skin become moist, it is an indication that the usually benign character of such lesions is undergoing malignant changes.

When leukoplakias or white, thickened patches on the mucosae begin to crack open, they must be immediately treated, as this change indicates malignant transformation.

When difficulty in swallowing is felt, a cancer may be forming in the esophagus. An x-ray examination and inspection with the esophagoscope will immediately enable a correct diagnosis to be made.

When a cough without any other signs appears, x-ray pictures of the lungs should be taken immediately, as cough is often the first sign of cancer of the lung.

When a chronic breast inflammation shows hard nodes, an x-ray picture of the breast gland should be taken. If the lesion is shown to be diffuse, an excision, under local anesthesia, should be performed and all the tissue examined microscopically, to rule cancer out or in.

When loss of appetite seems to come out of a clear sky, or indigestion has existed for a long time, clinical and x-ray examinations of the stomach must be made without delay, as the symptoms may mean cancer.

When hoarseness or huskiness of the voice sets in, cancer of the larynx should be feared. Examination with a throat mirror will immediately show whether a tumor has formed.

When blood is passed from the genital organs, the bladder or the rectum, examinations with special instruments are called for to determine the true significance of the bleeding.

During the climacteric, an increase in the amount and duration of the monthly flow or the appearance of bleeding at irregular times is especially significant of cancer.

When persistent pain takes place in a bone, x-ray pictures should be taken. Such pain frequently means the onset of cancer.

When a discharge appears, especially from the female genital organs, we must remember that such signs and symptoms may mean impending cancer. Immediate examination will enable the physician to determine whether a new growth is developing.

Therapeutic measures for the arrest of cancer have been developed to a high degree. The methods consist of surgery, either with the cold knife or with the electrotome, and of radiation therapy with roentgen rays and radium. No other methods are now known to exist by which cancer can be totally eradicated. Yet these remedies will remain impotent unless early diagnosis furnishes the surgeon or radiologist a fairly localized and beginning cancer. When diagnosis is obvious, most cancers are already in the incurable

stage. Yet, in most cases, diagnosis is possible when the disease is curable by modern methods. The difference between early and late diagnosis means the life of a patient. There is no other major cause of death in which early diagnosis occupies such an important position.

The difficulties in the diagnosis of cancer are very great, probably greater than with any other group of diseases. Every organ and tissue of the body may become the primary seat of a malignant growth. Therefore the diagnosis calls upon the resources of every one of the medical specialties and general medicine and surgery.

Cancers may be accessible or inaccessible. They are accessible if they can be seen or if they can be exposed to view by speculums and endoscopes. The inaccessible cancers are those of the internal organs, as the cavity of the skull, the chest, the abdomen, the bones, etc. Yet modern medicine has bent all its energies on improving its diagnostic aids by the construction of artificially lighted instruments known as endoscopes which may be inserted into the body canals and hollow organs to enable the physician to inspect these regions. Modern x-ray diagnosis, also, has resulted in depicting lesions in these otherwise inaccessible cavities and thus aids the physician in the diagnosis of disease conditions in otherwise inaccessible regions of the body. The inaccessible or internal cancers outnumber the accessible or external.

Cancer in the beginning stage or beginning nodule is silent—it gives no local or general subjective symptoms until it reaches a certain stage. The suspicion of cancer should be constantly in the mind of the physician and the laity. Cancer-mindedness will thus lead to the discovery of the early cases. A great deal of assistance is given by the fact that cancer rarely develops in a previously healthy tissue, but generally in tissue altered by chronic disease and subjected to chronic irritation. Cancer generally develops slowly and by successive stages.

The above-mentioned signs and symptoms should lead the physician and the layman to think immediately of the possibility of precancerous lesions or impending cancer. The physician should strive to obtain an immediate and correct diagnosis without procrastination. Delay in diagnosis is the best friend of cancerous disease and the greatest enemy of the cancer patient. Precancerous lesions and early cancers are curable.

H. S.

Pyretotherapy: A Symposium*

Researches in Pyretotherapy

The ancients taught that fever was a beneficent process and curative; but since the time of Virchow we have feared fever and tried to combat it. Now, however, we are again beginning to realize that fever is a protective mechanism.

The treatment of neurosyphilis by inoculating the patient with malaria is now generally accepted, but there are definite dangers in grafting one disease upon another; and, in view of the fact that it is the *high temperature* that cures, rather than the infection itself, patients should not be subjected to these dangers.

The temperature of the human body can be raised to any point desired by the use of physical methods, such as prolonged hot baths, high-frequency electric currents (diathermy), and suchlike, and it makes little or no difference, from a therapeutic standpoint, which method is used, if that method produces high and sustained fever, as this is what does the work. Some of the apparatus used for this purpose is dangerous, especially in untrained hands, and some is safe and satisfactory, if well handled and used in carefully selected cases.

A pyretotherapy treatment takes all day, with *constant* attention to the patient by a *trained* attendant. It is comparable to a major surgical operation. The physician and the nurse-technician are the most important factors, and the apparatus the least so.

We first used a Radiotherm (short wave—30 meters—with 10 million cycles), but found that the "radio" energy tends to collect in the pools of sweat which form, so we had to pass a constant current of dry, hot air around the patient, at a considerable velocity, to keep him dry. We found that air at a temperature of 300° F., with zero humidity, would not cause burns.

Then we discovered, by accident, that the Radiotherm was unnecessary. Now we use the "Hypertherm"—a cabinet apparatus, employing only dry hot air, circulated by pressure fans and with thermostatic and humidistatic controls. Treatments are given at intervals of from two days to a week.

The temperature of the patient's circulat-

*Abstracts (by G. B. L.) of four papers presented at the Henry Ford Hospital, Detroit, Mich., May 5, 1936.

ing blood rises first, and the rectal temperature is a good index. The mouth temperature is unreliable. The skin temperature rises and falls rapidly, but they all run together after an hour. Thermometers get "tired" after a month or so, and their accuracy should be checked with a thermocouple at regular intervals.

The patient loses immense quantities of chlorides during one of these treatments and should be given from 5 to 6 liters of iced, 0.6-percent saline solution, by mouth.

The blood pressure falls slightly during a treatment, the diastolic more than the systolic. The pulse rate follows the temperature, the same as in spontaneous fever—7 beats for each degree Fahrenheit. The basal metabolism rises accordingly. Free hydrochloric acid disappears from the stomach after 90 minutes, but returns to normal at the end of the treatment.

We have given 500 patients 4,000 treatments, with no accidents. Of these patients, 175 were syphilitic. They received 10 treatments of 5 hours each, followed by 20 intramuscular injections of Bismarsen. In the paretics, good clinical results were obtained, even though the serologic reactions were unchanged In tabes, the pain was relieved and the other symptoms improved, in most cases. Prompt results were obtained in cases of exudative ocular syphilis. Neurosyphilis can be *prevented* by giving the patient pyretotherapy treatments *from the beginning of the disease*, combined with chemotherapy.

Excellent results were obtained in gonorrheal arthritis. In early infections, arthritis, chorea, and asthma, the results were encouraging, but the method is still experimental in these conditions. We must go slowly and use great care in selecting patients for pyretotherapy, and in watching them.

WALTER M. SIMPSON, M.D.

Dayton, O.

Sedatives in Pyretotherapy

In giving pyretotherapy treatments, sedatives are practically always required to keep the patient quiet and reasonably comfortable. The ideal sedative for this purpose should possess the following properties:

1.—Non-toxic in therapeutic doses.

2.—Not too quickly absorbed and excreted.

3.—Easily administered, preferably by mouth.

4.—Produce no vomiting.

5.—Cause no respiratory depression.

6.—Cause minimum or no fall in blood pressure.

7.—Not habit-forming.

In a search for an available sedative approaching the ideal we have experimented with Sodium-Amytal, Pantopon, and Sedormid, and have selected the last-named as being most suitable for this purpose. Children are more susceptible to this drug than are adults.

In preparing a patient for one of these treatments we give him a high-carbohydrate meal and 12 grains (0.8 Gm.) of Sedormid, by mouth, the night before the treatment. At 6:30 A.M. the next morning we give another 12 grains of Sedormid; and at 7:30 A.M. an intravenous injection of 500 cc. of 10-percent dextrose in physiologic saline solution. The treatment is started at 8:00 A.M.

DRS. F. W. HARTMAN AND A. H. DOWDY.

Detroit, Mich.

Pyretotherapy in Neurosyphilis

Two cases of cerebrospinal syphilis were treated as actively as possible for several years, with chemotherapy, without arresting the progress of the disease.

We gave each of these patients 50 hours of pyretotherapy (10 treatments of 5 hours each), with a Hypertherm apparatus, producing clinical and serologic improvement in both.

Thirty-four (34) old cases of neurosyphilis (average duration, 17 years), all ambulant, received 50 hours of pyretotherapy each. Most of them received, in addition, a course of intramuscular injections of Bismarsen. Of these patients, 29 showed distinct improvement in their physical and serologic findings, symptoms, and mental status.

FRANK R. MENAGH, M.D.

Detroit, Mich.

Results of Pyretotherapy

In our experience with pyretotherapy, we have given 289 patients a total of 1,405 treatments. These patients included 72 with neurosyphilis; 48 with eye conditions; 21 with pelvic infections (14 of which now appear to be well); and 24 with gonococcal arthritis. The results in all of these cases were satisfactory, and in some cases brilliant.

A patient with **osteosarcoma**, who had had a full course of deep x-ray treatment, cleared up entirely after eight pyretotherapy treatments at from 105° to 106° F.

It should be remembered that Coley's toxin, which has been rather widely used in malignant conditions, produces fever. If this method of treatment is used, it should be reinforced with x-ray treatment.

A boy with rapidly developing osteogenic sarcoma, who had received x-ray treatment, had been told, by a prominent cancer specialist, that he had not long to live. After several pyretotherapy treatments he felt better, and is still alive.

Another patient, whose case had been diagnosed, at one of the great clinics, as Ewing's

sarcoma with metastases in the lungs, was given pyretotherapy treatments, to sensitize him, and then x-ray treatments. The lung metastases have cleared up and the patient feels better.

We are making no exaggerated claims regarding the value of pyretotherapy in malignant conditions, but the results seem promising and the method seems worthy of further trial.

HOWARD P. DOUB, M.D.

Detroit, Mich.

NOTES AND ABSTRACTS

Physiotherapy in Rhinolaryngology*

IN inflammations of the postnasal fossa and the eustachian tube, good results can be obtained by the use of ultraviolet rays through the tube and into the middle ear. I have tried this method in many of my cases and found it very beneficial; it should always be accompanied by diathermy treatments.

I have treated many adults and children, who were suffering from chronic catarrhal sinusitis and chronic rhinopharyngitis, with short- and long-wave diathermy, in conjunction with general alpine radiation. Many of these cases have resisted all other forms of treatment.

Hypertrophic rhinitis or hypertrophied turbinates can be treated successfully by surgical diathermy or electrocoagulation. It is much more satisfactory than any other method I have known.

Recurrent polypoid degeneration of the nose, or rather of the ethmoid and sphenoid sinuses, can be successfully cured, without recurrence, after the appropriate operation for the removal of the polypi, by the use of radium.

In certain cases, electrocoagulation of the tonsils is one of the most useful methods I know of in removing diseased tonsils without hospitalizaton of the patient and without any danger to the "operative risk" patient.

Small ulcers of the nasal septum, which are prone to bleed, can be controlled by fulguration or desiccation, and if they recur they can be treated by zinc ionization.

Artificial sunlight in the treatment of laryngeal tuberculosis has been used with great success and benefit. I have treated several cases with the Kromayer lamp radiation into the larynx through a prism refracting applicator, together with general body irradiation, and the results have been gratifying.

Within the past year I have tried, in many cases, short- and ultrashort-wave therapy in nose and throat disease and tonsil enucleation, and have found both more satisfactory and a great improvement over the old method of using diathermy.

Electrotherapy is not exclusively an office procedure, to be used by the physician in private practice. It is often a valuable aid in the hospital.

SAMUEL MORSE, M.D.

New York City.

*M. Rec., Mar. 4, 1936.

New Fields for Ultraviolet Rays*

AT the Third Congress of Physical Therapy, held at Kharkow, Russia, in December, 1935, a number of important and valuable matters were discussed, especially in connection with the possibilities of ultraviolet rays.

In the treatment of acute infectious diseases, sunburn by ultraviolet rays holds first place. The French technic of producing sunburn, determining the erythema threshold by means of Saidman's cutaneous sensitometer, was fully confirmed.

Several authors reported good results from the treatment of acute polyarthritis with sunburn therapy, irradiating the *affected joints* with a mercury-vapor lamp. The general condition of the patients improved; the pain diminished after the first treatment; the temperature began to fall after 24 hours and reached normal by lysis, in three or four days; the local infiltration and edema disappeared; and the blood sedimentation rate returned to normal after about one month. General irradiation acted much more slowly.

Influenza and Pneumonia

A combination of artificial heliotherapy with powerful heat radiations, was very helpful in the treatment of 6,100 cases of influenza, especially in the incipient cases. The severity of the attacks and the periods of disability were decidedly reduced. In 46 percent of the cases, the temperature fell to normal after the first treatment, and in 34 percent after the second treatment. The pleural exudate was rapidly absorbed and the sedimentation rate became normal quite promptly.

*Annal. de l'Inst. d'Actinologie (France), Feb., 1936.

Patients with pleural complications received from 3 to 6 first-degree sunburn doses, over an area of from 200 to 400 square centimeters. If there were symptoms of angina, the pharynx was irradiated by means of special tubes.

Ultraviolet irradiations were also used for prophylaxis, especially in patients showing a predisposition to recurrent attacks of this disease, who exhibit persisting blood changes (anemia, leukopenia, eosinophilia, reduction in monocytes, and a rapid sedimentation rate). These abnormalities were corrected by prophylactic irradiations in 63 percent of the cases treated.

In *lobar pneumonia*, sunburn therapy, employing a first-degree erythema over the site of the disease, caused relief of the local pain and headache, a diminution of the signs of toxemia, a fall of the temperature by lysis, disappearance of the leukocytosis, and normalization of the sedimentation rate. Auscultation confirmed the improvement. In some cases, only one treatment was needed to produce these results, even in elderly patients. The most pronounced effects are seen if the treatment is given early in the disease.

In severe burns, daily irradiations, with mild, suberythema doses, relieved the pain, diminished shock, reduced the characteristic odor, favored sleep, hastened the formation of new skin or soft scar tissue, and reduced the mortality (which is usually about 40 percent in these cases) to 17 percent.

JEAN SAIDMAN, M.D.

France.

Diathermy in Pneumonia

THIRTY-six (36) consecutive cases of lobar pneumonia were given standard treatment, including serum or oxygen or both, when indicated. In addition, half of the patients (alternate cases) were given diathermy treatments. The mortality rate in the diathermy group was 11.1 percent; in the control group, 33.3. percent.—DRS. WETHERBEE, FOLEY AND RESNIK, in *New Eng. J. of M.*, Oct., 1935.

BOOKS

Diffenbach: Ultra-Short-Wave Therapy

ULTRA SHORT WAVE THERAPY. *By William H. Diffenbach, M.D. New York: B. Westermann & Co. 1936. Price, $3.00.*

This book gives the impression of being a hastily assembled and undigested collection of scraps from other writings, the compiler giving no evidence of a comprehensive grasp of electro-physics or of wide clinical experience. It reads like a sales talk for the manufacturers of certain apparatus in this field.

Anyone purchasing this book to obtain information regarding short-wave therapy, as it is at present understood and practiced, abroad and in this country, will be disappointed and possibly led astray.

F. T. W.

NEWS

American Congress of Physical Therapy

THE fifteenth annual scientific session of the American College of Physical Therapy will be held at the Waldorf-Astoria Hotel, New York City, September 7 to 11, inclusive, 1936. An excellent program has been prepared.

For full particulars, write to Dr. A. R. Hollender, Chairman, Convention Committee, 30 N. Michigan Ave., Chicago, Illinois.

SOAKING THE POOR

I defy any man, in or out of Washington, to show how the present enormous cost of government can be met without "Soaking the Poor." I defy anyone to show how "Soaking the Successful" or "Redistribution of Wealth," with our present cost of government, will put one dollar in actual cash into the pockets of the poor.

Every penny that the Government would realize, based upon the schedules recently submitted to Congress, even if taxes were imposed upon three million people on their incomes of over $2,000, if married, and $800 if single, would pay but a fraction of the present annual deficit of the Federal Government.

How, therefore, is it possible to put any new money into the pockets of the poor or to redistribute any of the wealth thus seized?

It is now perfectly clear that unless the wasteful and extravagant expenditures of the Federal Government are drastically lowered, the poor will have to be unmercifully "soaked" to pay for the present expenditures.

—CARL P. DENNETT.

PROCTOLOGY

ASSOCIATE EDITOR

WILLIAM A. HINCKLE, M.D., Peoria, Ill.

The Injection Treatment of Hemorrhoids*

By Harry E. Bacon, B.S., M.D., F.A.C.S., and Harvey A. Price, M.D., Philadelphia, Pa.

THE recognition and approbation of the injection method for treating hemorrhoids is the culmination of a long and valiant struggle on the part of the few who discerned its inherent value underlying the muddy film of its doubtful reputation. The originator of the method in this country was Mitchell, of Clinton, Illinois, who, in 1871, adapted to his own uses the discovery of Morgan, of Dublin, Ireland. He seemed, however, to care little for actual results and gave no study or thought to further development of this procedure or to proper instruction of those who wished to practice this therapy. For this reason, the treatment, being exploited throughout the country by itinerant charlatans and ignorant practitioners, fell into disrepute. It took many years of firm faith, assiduous labor, and widely disseminated literature to restore the tarnished reputation. For this Andrews,[1] Tuttle,[2] and Kelsey[3, 4] should receive most credit, for it is largely through their efforts that the injection treatment has attained a definite place as an ethical and scientific procedure. Opinions, both adverse and favorable, are strewn upon the pages of medical literature, and controversy has not yet been completely silenced; nevertheless, this therapy is today held in high esteem by leading proctologists in this country and abroad. In selected cases it is recognized as an adequate means of treatment; and besides being effective, it is painless, the patient remains ambulant, and no opiates are required.

Most of the contrary opinions are based on adverse results which sometimes occurred, and with complications, such as sloughing, abscess and fistulas. These have been eliminated to a great extent by perfection of technic, but the greatest factor in obtaining satisfactory results is the proper and discriminating selection of cases. According to Martin,[5] approximately 50 percent of cases of internal hemorrhoids are suitable for injection; and Dukes,[13] of London, has answered practically every known controversy in his review of this therapy. The great misfortune is that those not properly schooled in the anatomy of the anorectal region or skilled in this technic are prone to inject hemorrhoids indiscriminately. Unsatisfactory results, complications, and even failures may be expected in the wake of incorrect diagnosis, indifference to contraindications and faulty technic. Utmost care and strict adherence to every detail must be exercised. Initially, it is advisable that the patient understand the limitations of this form of treatment.

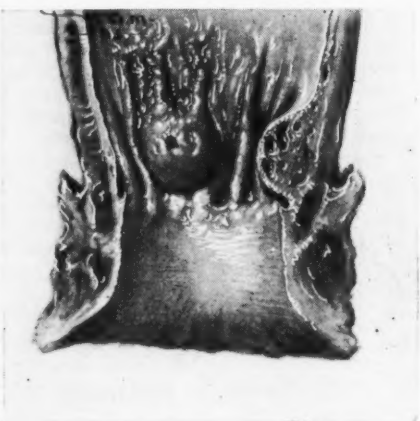

Fig. 1.—Diagram showing the internal variety of hemorrhoid, which is suitable for injection treatment. (The surface view is shown at *a;* the cross-section at *b.*)

Hemorrhoids of the internal variety, when small or of moderate size, and uncomplicated (Fig. 1), are suitable for the injection treatment. This form of therapy is contraindicated, however, in all external hemorrhoids; where considerable fibrosis exists; in complications where inflammation and protrusion are marked; or where thrombosis, strangulation, or ulceration has occurred; also in the presence of a markedly contracted sphincter; and where associated pathoses exist, such as fissure, fistula, tumors, cryptitis, proctitis, and phlebitis.

*From the Departments of Proctology, Temple University Hospital, and the Graduate Hospital and Medical School, University of Pennsylvania.

Equipment

The only instruments necessary are a suitable anoscope, a syringe and needle, a sclerosing solution, and good light. The selection

Fig. 2.—Martin's Anoscope.*

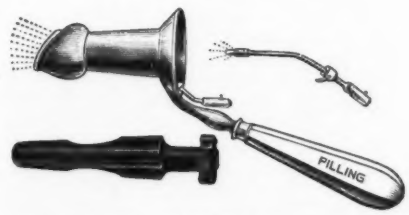

Fig. 3.—Bacon's self-retaining speculum, with obturator and light.*

of a speculum is largely a matter of choice depending mainly on the custom of the individual physician. We use routinely the anoscope designed by C. F. Martin (Fig. 2), and find it admirable for this purpose. In the absence of an assistant, or in the event that the patient be nervous and uncooperative, Bacon's self-retaining speculum (Fig. 3), which is a modification of Martin's, will prove of service.

Any type of syringe may be used for the injection treatment, provided it meets the essential requirements and can be handled conveniently by the operator. One that is easily cleaned, inexpensive and of durable glass should be selected. Either a tuberculin or the ordinary Luer syringe is suitable for this purpose, especially since standard needles may be attached. For clinic use especially, the Cook's carpule syringe is ideal. We prefer an all-glass, Luer-type syringe of 3 cc. capacity, with a specially-designed crooked neck extension and needle (Fig. 4). By this means hemorrhoids are easily injected and vision is not obscured. A needle that is sharp, of medium bevel, and 24 or 25 gage is preferable.

In all cases good illumination is essential, whether it be direct or indirect. Bacon's light, as shown in Fig. 5, has proved of distinct value for office and clinic use. It is inexpensive, adapted to any collared anoscope, and does not obscure vision or interfere with instrumentation.

The selection of a sclerosing fluid is important in the injection of internal hemorrhoids. Tuttle[6] says: "The principle upon which this method is based consists in the production of an inflammatory induration of the hemorrhoidal mass, through which the circulation is retarded or partially cut off, but which does not go to the extent of cauterization or strangulation so as to result in sloughing." Quinine and urea hydrochloride, introduced by Terrell,[7, 8] and phenol are standards that may be used with satisfaction, in proper strengths, although Rosser[9] states that, in his experience, phenol, even when dissolved in glycerin, must be limited to a few minims if sloughing is to be avoided. All strong fluids cause sloughing.

Technic

No preliminary preparation of the patient is necessary for the injection treatment. Using the Sims or left lateral position, the upper cheek of the buttock is held by the patient or an assistant and the finger, well lubricated, is inserted into the anus. The execution of a few circular movements of the finger before the speculum is introduced not only thoroughly moistens the anus and partially relaxes the sphincter, but also assists in gaining the confidence of the patient.

Fig. 4.—Special syringe and needle for injecting hemorrhoids.*

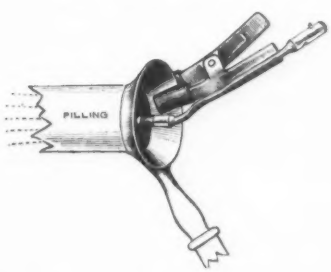

Fig. 5.—Bacon's light, adaptable to all collared anoscopes.*

The speculum is smeared with a water-soluble lubricant and gently inserted in a rotary manner. Ordinarily this is more readily facilitated by requesting the patient

*Cuts by courtesy of George P. Pilling & Son Co.

to strain or bear down. After the hemorrhoidal tissue is exposed, carefully inspected, and the most prominent pile selected for injection, the surface of the hemorrhoid is

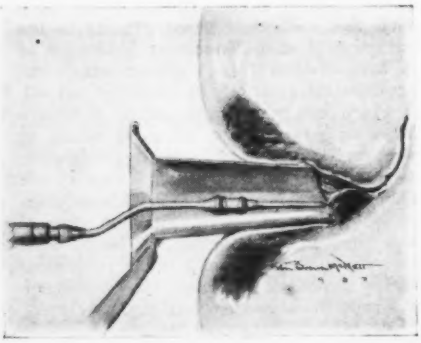

Fig. 6.—Proper method of injecting an internal hemorrhoid, showing tip of needle beneath the mucosa.

wiped clean with a dry cotton applicator and painted with a 5-percent solution of mercurochrome. The needle is inserted into the upper portion of the surface of the pile mass for a distance of approximately one-eighth to one-quarter of an inch. It is important to introduce the tip of the needle into the submucosa and not into the varicose veins (Fig. 6). The plunger is slowly pressed down until 5 to 10 minims of the quinine and urea hydrochloride solution are injected, or until slight ballooning takes place. The surface should appear only slightly ischemic (Fig. 7). When a sufficient quantity of the solution has been injected, the speculum and needle are withdrawn together. It is unwise to reinsert the instrument once it has been withdrawn.

There should be no pain at the time of or following the injection, although a sensation of heat or fullness may occur. Usually this quickly subsides. The most frequent cause of pain is making the injection too close to the anorectal line; so that, should any discomfort occur during the insertion of the needle, it should be immediately withdrawn and reinserted at a higher level. By gently rotating the speculum, with the tip of the instrument well above this line of junction, the injection can be made painlessly. Discomfort, often described as a burning sensation, occurs following the injection of too large an amount of solution. This may be prevented by stopping the injection as soon as ballooning begins or the surface of the pile becomes slightly blanched. Protruding hemorrhoids should never be injected in situ, but should first be replaced.

Ordinarily one hemorrhoid is treated at each visit. When they are of small size, however, I do not hesitate to inject two hemorrhoids at each treatment, especially if the patient resides at a distance, making frequent visits inconvenient.

There is no hard and fast rule as to the number of injections required. This is determined by the number of hemorrhoids and the length of time they have existed; in other words, their general condition. As an average it may be said that each hemorrhoid requires from two to four injections, so that a total of six to sixteen constitutes a

Fig. 7.—Needle in center or superior portion of pile mass. Note slight blanching of mucous membrane as solution is injected.

course. Usually at this time the hemorrhoidal masses will have disappeared. The site of injection, whether right or left, anterior or posterior, as well as the amount of solution administered and the date of each injection, should be recorded, preferably at the time it is given.

Four to seven days are permitted to elapse between injections. It is of the utmost importance that the hemorrhoids be treated at regular intervals and not in a haphazard fashion. Ordinarily we inject these cases twice weekly without interruption, where possible. The same hemorrhoid should be treated not oftener than at one-week to ten-day intervals, and each injection should be made only after digital examination determines the absence of induration. Where stronger solutions are used, a longer period should elapse between injections.

In the matter of after-care, no specific treatment is required, although the patient is advised to avoid severe physical strain on

the day of the injection. Cleanliness is, of course, essential. Liquid petrolatum, ½ to 1 ounce by mouth, is prescribed night and morning during the course of the treatment. In each case a daily evacuation must be effected, using, if necessary, agar agar, milk of magnesia or Petrolagar. Drastic purgatives are interdicted. A regular, liberal diet is permitted. Should protrusion of the injected hemorrhoid occur between treatments, the patient should be instructed to replace the pile masses at once by gentle pressure.

Advantages and Disadvantages

The advantages have already been touched upon lightly. Foremost is the fact that no pain, either during or following the injection, accompanies this procedure, if properly performed. The method requires no anesthetics and is more economical for the patient. It is an ambulant procedure and therefore does not necessitate hospitalization. No period of disability should occur; in fact, complications are comparatively few and of less import than postoperative sequelae. Without risk, this therapy can be utilized in pregnancy, diabetes, and old age, as well as in cardiac, renal and pulmonary diseases.

Although few, the disadvantages may be enumerated as follows: (1) Limitation of the treatment, in that not all hemorrhoids are suitable for injection; (2) frequency of recurrence, estimated at approximately 15 percent in from two to five years [6, 10, 11]; and (3) the misfortune that the procedure is so often performed by the unskilled, with the result that the complications arising are not only disheartening to the proctologist, but hazardous to the patient.

With experienced operators, careful selection of cases, and meticulous preparation of the various solutions, complications are today comparatively rare. In some instances a feeling of syncope may occur during or immediately after the injection, but this quickly subsides. At times a sensation of heat or slight fullness exists for a few minutes, but rarely does it continue for more than half an hour. Pain of a burning or stinging character occurs where the injection is made too close to the anorectal line or where too much solution is injected. This may continue for several hours. Of course the injection should not be made when the mere insertion of the needle is attended by pain; but if the solution has been deposited, hot compresses and sitz baths will prove of value. In an exceptionally small proportion of cases, idiosyncrasy to quinine will be noted (1 percent), but this should not deter the physician from using the drug as a routine procedure. In two cases we have observed transient impairment of vision; in another, erythema was noted; and in a fourth, tinnitus. Pallor, vertigo, deafness, and blindness have been reported. In such cases, phenol or sodium morrhuate should be substituted. The carriers or vehicles of phenol are not devoid of complications, as shown by Rosser.[12]

Marked bleeding never occurs unless sloughing takes place, although slight oozing is not uncommon. In part this may be avoided by withdrawing the speculum at the same time as the needle. This relieves the tension placed upon the pile mass by the tip of the anoscope and permits the rectal walls to collapse, which serves to exert slight pressure and thereby prevent bleeding. Unfortunately sloughing is relatively common, especially when the procedure is performed by the unskilled. Usually it is due to the use of a too-strong or an excessive amount of solution, or to making the injection too close to the anorectal line. As a remedy, the instillation of warm olive oil or dichloramine-T may be used with satisfaction. In these cases bleeding is not infrequent, and pressure with a plug of vaseline gauze or even ligature may be necessary. By some, sloughing is considered a minor sequela, but it should be avoided, since complications of a more serious nature may ensue, such as ulceration, proctitis, stricture, abscess, and fistulas. Death from liver abscess and pulmonary infarction has been reported following injection treatment. Where contraindicated, the injection method should by all means be avoided, but in selected cases it is a facile, painless and satisfactory procedure.

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NOTES AND ABSTRACTS

Pruritus Ani*

PRURITUS ani may be due to chemical changes in the secretions of the colon and rectum; to abnormal frequency of the stools; to allergy or anaphylaxis; to various forms of dermatitis, due to seepage of secretions, diet, etc.; or to the presence of various forms of trauma, including that from large, hard stools.

Before intelligent treatment can be instituted, the cause must be diligently sought and discovered and the causative factors must be treated and removed, so far as is possible. This may require dietary and other hygienic regulations, the administration of drugs, or surgery of one type or another, including various kinds of local injections.

In resistant cases, small and frequently-repeated doses of ultraviolet or x-rays are sometimes useful.

Treatment of pruritus ani by simple local applications, without a careful study of the individual case, is always a bad and unsatisfactory practice.

A. B. WALKER, M.D.

Lincoln, Neb.

[If a rather severe dermatitis (or "eczema") is a feature of a case of pruritus ani, it is well to rule out diabetes, in searching for the cause, or, if this condition is found, to treat it, before resorting to surgical measures. —ED.]

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Treatment of Internal Bleeding Hemorrhoids

INJECTIONS of quinine and urea hydrochloride solution into the hemorrhoidal mass provide such a sure method of stopping the bleeding from internal hemorrhoids, that, in the author's opinion, it should be the treatment of choice in every case where the patient's condition indicates that he is a poor surgical risk. Operation always can be resorted to after the patient has improved sufficiently to make it an entirely safe procedure. —DR. F. C. SMITH, of Philadelphia, in *M. J. & Record*, Sept. 7, 1932.

I have yet to read my first copy of "C.M.&S." that is not worth the entire subscription price.—R. C. L., M.D., Ala.

*J. A. Coll. Proct., Apr., 1936.

Non-Specific Colitis

C. D. HARE, in *The Practitioner* (London), Dec., 1934, concludes that non-specific colitis is a disease of long duration, with alternating relapses and remissions. The causation is still unknown. Certain features link this disorder to the vitamin deficiencies and the anemias. Clinical manifestations are more varied than is generally recognized. Diagnostic investigation should include an x-ray examination by barium enema. Other local manipulations, such as sigmoidoscopy, are not without danger and should not be used as a routine. Treatment by colon irrigation is irrational, harmful, and should be abandoned. Surgical procedures should be avoided, as the patients are bad surgical risks; operations for closure of artificial stomas lead to relapse, which is often fatal. Treatment by high-vitamin diets is very beneficial, and iron gives remarkably good results in anemic cases. Early diagnosis, proper management and continuous care of the patients improve the prognosis.

W. A. H.

BOOKS

Blond and Hoff: Hemorrhoids

DAS Hämorrhoidalleiden. Seine Komplikationen und deren Behandlung (Hemorrhoidal Disease. Its Complications and their Treatment.) *By Dr. Kasper Blond and Dr. Herbert Hoff. Pp. 121, with 50 partly-colored illustrations. Vienna: Franz Deuticke. 1936. Price 12 marks.*

This small book represents the results of much clinical research with regard to the nature of hemorrhoids, fissures, fistulas, and thrombophlebitis. Special chapters are devoted to mucous prolapse and varicose veins of the lower extremities. Basing on a new concept of the causative factors of hemorrhoidal affections, the authors have devised a method of injection treatment above the seat of trouble, which is as original as it appears to be scientific. Comparison of large numbers of patients treated by standard methods with many treated by the new idea certainly supports the contention of the authors. The directions for the diagnosis and treatment of the affections outside of hemorrhoids are excellent. Electrosurgery is briefly described and indications for it are given. The book is of real interest to surgeons and general practitioners who include anorectal affections in their daily work.

G. M. B.

A LIVING FOR THE DOCTOR

(The BUSINESS of Medicine)

A Local Credit and Budgeting Association

By M. R. Kukuk, M.D., Toledo, Ohio

THE physicians and dentists of Toledo and Lucas County, Ohio, have had experiences, similar to those of men practising in other communities, with both honest and dishonest collection agencies. A mercantile credit rating bureau was at their disposal, but this was not enough.

During the summer of 1933, ideas took form in the guise of The Toledo Physicians and Dentists Credit Association. The Association was housed, from the start, in the Academy of Medicine building and was to be directly under the control of a committee composed of six physicians and one dentist. This committee is appointed by the Council of the Academy of Medicine.

Its avowed purpose was an attempt to educate the public to pay the doctor first; not last. Incidentally, many a physician, placing accounts with the association for collection, has received a certain amount of education himself, particularly to the effect that he should not hold an account too long, and thereby lessen the efficiency of the collection division.

The personnel actively concerned in the daily conduct of business consists of a business manager, two clerical assistants, and two collectors.

The functions of the association may be listed as follows: (1) Collection division; (2) locate division; and (3) credit rating. At the beginning a membership fee of $1.00 a month was contemplated. For this fee a member was to be entitled to the services of the association, unlimited credit information from its files, and a membership sign to be displayed in his office or reception room. This membership fee has never been charged and the idea of furnishing free unlimited credit information has been abandoned.

The rates for the various services have been somewhat lower than those charged by the commercial agencies, as shown below:

I.—*Collections.*

1.—Accounts under $10.00.
   A. Less than one year old 27½%
   B. More than one year old 35%
2.—Accounts over $10.00.
   Less than two years old 25%
3.—Accounts less than six months old.
   A. Under $10.00 ..... 25%
   B. Over $10.00 ..... 20%
4.—Accounts over two years old 35%
5.—Accounts over $250.00—by special arrangement.
6.—Traced accounts 37½%
7.—Forwarded accounts.
   1/3 to forwarding agency.
   2/3 of agency making collection } 50%
8.—Out-of-town accounts.
   A. Under $10.00. ..... 50%
   B. Over $10.00 ..... 33⅓%

II.—*Locate division.*

1.—New addresses from office files $0.75
2.—Locates demanding special investigation 1.50

III.—*Credit rating.*

1.—Card reports from office files ..... .20
2.—From office files, plus telephone investigation ..... .35
3.—Written reports in detail, including special investigation ..... .85

In pursuance of the policy established by ethical agencies, no contract is offered or given. Collections are made on the contingent basis of, no collection, no charge. Any money collected on an account is remitted to the client on the first of the month following collection.

The law demands that a notice be sent to a debtor when a third party is employed to handle an account. If this brings no response, a second notice is mailed out within ten days to two weeks. Sometimes a third is mailed after a similar interval of time has elapsed. If these efforts are unfruitful, a collector is sent out to call upon the delinquent. These representatives, who are employed on a commission basis, make every effort to carry out one of the policies of the organization—to retain the good will of the patient if it is at all possible to do so.

Credit men, who are in a position to know, estimate that a physician's account depreciates 20 percent if it is not paid within sixty days. This depreciation increases to 50 percent of the face value of an account six months old. Judicious use of the collection service rend-

ered by the association has a tendency to reduce markedly the depreciation of accounts on which no payments are being made.

An attempt has been made in the organization of the collection service to avoid those procedures which have been a source of criticism in the activities of commercial agencies. The personnel has been careful to differentiate, as far as possible, between the willful and the non-willful debtor. This, of course, involves a great deal of personal investigation.

The great flexibility of this association is shown by the methods used in the handling of exceptional collection problems. If so desired, a personal contact man, serving in the name of the physician or dentist, can be furnished for slow accounts which ordinarily would be turned over reluctantly for collection. All calls are made by the Association investigators, as though coming direct'y from the doctor's office. This is only another effort to preserve the patient's good will and effect collection without the Association's part in the transaction becoming known. Remember, patients with paid accounts come back for service. Cheeses may be improved by aging; past-due accounts never are.

Since the physician has only service to sell, the patient has nothing tangible to serve as a reminder of the debt. It is true that some patients have a scar to show for services rendered, but it is not the same as something they can pick up and handle. A vacuum cleaner or a piece of furniture presents a material reminder to the debtor. It is not customary for the medical man to secure himself by a retainer fee, and he has no recourse to a lien, as a workman, for his services. It is a daily experience that sometimes a patient loses the desire to pay, sometimes the ability to pay, and in some instances both.

If so desired, members may obtain a credit rating on a prospective patient within twenty-four hours. This report can be just as detailed as the member wishes, and will show how the individual has discharged his obligations, not merely to his mercantile creditors, but to hospitals and other members of the medical and dental professions as well. At the present time a majority of the members of the Academy are availing themselves of the facilities of the Credit Association. This service is entirely optional, of course.

This local organization is the fifth of this type to be instituted in the United States. The trail-blazers are those associations in Akron, Detroit, Atlanta, and Memphis.

During the month of March, 1936, due to the increased volume of business being done, new rates were announced by the association. The new rates are: 25 percent on all accounts of $10.00 or over, regardless of the amount of tracing or other work necessary; 40 percent on all accounts under $10.00, regardless of age or the amount of tracing necessary. These rates are 8 percent lower than those of any commercial agencies attempting to offer comparable services.

Paying on Installments

Recently a new plan has been offered to permit extended payments for professional accounts: The Professional Budget Corporation, "the physician's own finance company."

The work of the Budget Corporation is conducted in the same offices as those of the Credit Association. To a certain extent their work is interlocking. Manufacturers of various household products have quite generally "sold" the buying public on the "budget plan" or "installment buying." Now an attempt has been made to apply the same principles to the payment for medical care. In the event that some course of treatment is needed by an individual, a definite fee can be established by a preliminary agreement with the patient. The Toledo physician can avoid sending his patient to the usual type of finance company by informing him that, locally, the doctors and dentists have an organization of their own whereby liberal accommodations can be extended. It can also be stressed that no bills will be sent from the doctor's office after arrangements have been made with the Association, since regular payments can be made to the Association every month.

At the office of the Budget Corporation, housed in the Academy building, the plan is explained to the patient, and a mode of payment is agreed upon, in accordance with the patient's income. The patient is then advised that the obligation has been transferred from the physician to the Association. The amount of any single payment is governed solely by mutual agreement between the Budget Corporation and the patient.

An enumeration of the methods of operation of the Budget Corporation may be of interest.

An account will be purchased outright from the physician, without recourse. In such a case, a check for 90 percent of the face value of the account is sent to the doctor or dentist immediately. The purchase of an account upon such a basis by the Budget Corporation is contingent entirely upon the favorable outcome of a searching investigation of the patient's credit record and ability to pay. By means of this plan the account is really discounted 10 percent of its face value. How many men in the profession today would be glad to discount bills to that amount and receive cash for the balance due?

A second method by which cash may be obtained for 90 percent of the face value of accounts, either current or past-due, is to re-

duce them to note form on a definite payment schedule and carrying the doctor's guarantee. Under this option, 60 percent of the amount to be paid (90 percent of the face value) is remitted to the client at once, while the remaining 40 percent is credited to the physician on a reserve account and paid, together with 4 percent per annum, immediately upon completion of payment of the note in full to the Corporation. If so desired, the entire amount may be left on deposit, drawing 4 percent per annum, to be paid as soon as the note is paid in full.

In the event of a defaulted note, on which the physician has placed his name as guarantor, there are several optional courses of action which may be taken:

1.—Remittance of the full amount of the defaulted note, less interest. A rebate is made of the proportionate part of the discount on a basis of the unexpired term of the contract.

2.—Remittance of the scheduled monthly payments as they become due, the same as the patient contracted to do.

3.—Send new patients, to whom loans may be granted, and permit deductions from the regular proceeds on the new contracts sufficient to keep the defaulted cases up to date.

4.—Another method would be to allow the proceeds of collections from accounts held by the Credit Association to be applied on the defaulted notes held by the Professional Budget Corporation.

5.—Almost the final means of liquidation of a defaulted note is to resort to legal measures. There is an attorney in the office who will take over the collection at this point, if it is necessary to do so.

A word will not be amiss as to the form of guaranty used and as to how it differs from that used by most of the finance companies. In this transaction the patient is not informed of the fact that the physician has guaranteed payment. To eliminate this there is a "blanket agreement," which is merely a concise statement of the terms under which the physician sells and The Professional Budget Corporation purchases the accounts. It is, in effect, a guaranty that any note taken by the Corporation thereafter will be paid as stated in that note. Once this agreement is signed and filed with the corporation there is no necessity of signing or endorsing any future contract. The patient thus assumes that the agency is relying solely on his credit standing.

The methods of collection and financing, as outlined, through an organization under the supervision of the medical society, does not mean that they are held up to be the panacea for the handling of professional accounts. It is an attempt on the part of the profession to control its own destiny and a challenge to those who state that medical men can not present a workable plan to provide adequate care for all, on a sound and reasonable business basis.

2405 Franklin Ave.

NOTES AND ABSTRACTS

Social Objective of the Young Physician*

THE young physician is handicapped by a lack of any fundamental knowledge or teaching of economics, and I have reason to believe that he has not been well prepared to take his place in society by instruction in the practicalities of medical problems. He has been too busy during his college years to have business contacts or to have time for the study of human beings as members of society.

The development of clinicians who will be valuable social agents must begin with the admitting committees at the colleges and continue vigilantly through every undergraduate year. The entire corps of teachers must be imbued with a keen appreciation of their own social responsibilities and must transmit the spirit of it to their students.

The faculties that do not teach practical medicine are perhaps in some degree responsible for the wave of machine shops which young physicians are setting up all over the country.

Failing inspirational influence, the social objective of some young physicians seems to place material gain above service to the sick. They continue their education under the seductive eloquence of salesmen for machinery and drug houses and go deeply into debt, mortgaging their futures for several years of installments which must be retrieved from credulous patients. It is an amazing experience to walk into the office of a recent graduate and realize that some one is backing an investment of from three to five thousand dollars or more in mechanical equipment. It is reasonable to fear that these young physicians are in danger of slipping into the mire of quackery, are sacrificing ideals to expediency, and are also creating an

*J. A. M. A., Mar. 7, 1936.

impression in the minds of patients that physicians who do not possess these elaborate instruments are consequently incompetent to make diagnoses or to advise up-to-date therapy. Is this unsocial conduct merely a phase of practice that will destroy itself by lowering popular respect for these instruments through their indiscriminate and unskilled use? It seems obvious that machines and gadgets must be subordinated to intelligence and a revival of common sense.

It is my personal belief that raising the level of the practical education of all young physicians and attempting to impress them with their civic responsibility will strengthen their ability to handle all their social and economic problems.

NATHAN B. VAN ETTEN, M.D.

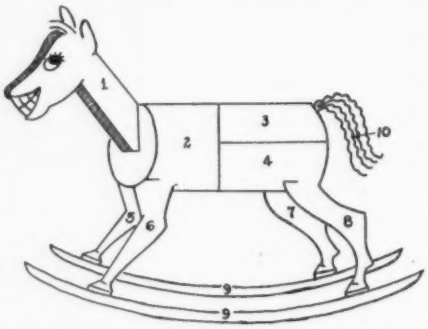
New York City.

The Hobbies of a Specialist*

EVERYBODY—especially every physician—ought to have hobbies; not just one, but an organized collection of them—a real *horse*, not a mere broomstick.

I am an otolaryngologist, and I purpose to present a sketchy outline of the way I have arranged my hobbies so as to get a *real ride* out of them and make them carry me forward in my professional work and in life in general. These are the things that any specialist can do with profit, in addition to the work by which he makes his living. With slight modifications, it can be made to apply to any physician; and by modifying it somewhat more, it will fit anyone.

The best and quickest way to get this idea across is to show a diagram of my horse and explain its anatomy, referring to its various parts by number.



Number 1 represents the deep and detailed study of all the phases of one's specialty, which every specialist should be doing eagerly, outside of his working hours, if he hopes to get ahead.

Number 2 indicates careful and regular study of all matters pertaining to *diagnosis*, in all other specialties and in general medicine.

Number 3 suggests the importance of *medical organizations:* Not merely being a "jiner," but actually *working* in every society to which it seems worth while to belong. Remember that all hobbies imply sincere and willing *work*—sometimes *hard* work.

Number 4 means teaching: Not merely formal instruction, given in classrooms, but teaching *everybody, all the time*, by writing and by talks before medical and lay groups, men and women, boys and girls, and by putting something into one's general conversation that will make the people one talks with wiser or better than they were before. This is a splendid hobby, which physicians should ride more regularly than they do.

Number 5 refers to the study of *neoplasms*, as connected with one's specialty and all other specialties—finding out what others can do and are doing along these lines. This may well embrace the whole field of malignant diseases, which is a highly important matter.

Number 6 includes an investigation of and personal research in the possibilities and technics of *reconstructive* and *plastic surgery*, specialized or general.

Under *Number 7*, every physician should be regularly and systematically working at *pathology*, specialized or general or both—actually cutting, staining and examining specimens both gross and microscopic, so that one can know, by *personal knowledge*, what makes the wheels of disease go round.

Number 8 is the reading and study of sound and solid *literature*, both professional and non-professional—any of the permanently valuable books which make one a wiser and more generally efficient human being.

Number 9 takes in *travel* for the purpose of learning or teaching or both—going to medical and other scientific or instructive meetings, as a speaker or as a hearer.

Number 10 includes all of one's non-medical hobbies (which are the only things most people look upon as such), which may be as widely varied as the tastes of the individual and are highly important for a happy and well-rounded life.

These may profitably include sports and games of all sorts; photography; travel purely for pleasure; an out-door life, such as is implied in farming or gardening; the theater; the radio (building or listening); all sorts of handicrafts; reading solely for pleasure; and hundreds of other activities.

JOSEPH C. BECK, M.D., F.A.C.S.

Chicago, Ill.

*Abstract by G. B. L., of a talk before the Medical Round Table of Chicago, Dec. 10, 1935.

Integrity

PEOPLE in general estimate the medical profession by their personal contacts with its members, whether these experiences are good or bad.

In some quarters there seems to be a feeling that, if the profession is not regarded so highly as it used to be, there is something lacking in medical education. But if there is something wrong, as there appears to be, it is by no means wholly the fault of the educators. It is that there are not enough deeply and fundamentally honest men among the students. We cannot make an ideal physician out of an actual or potential crook, no matter how learned he may be. Basic *integrity* is the most essential requirement of a high-class medical man.—DR. IRVING S. CUTTER, Dean of Northwestern University Medical School, Chicago.

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I have been using this method for almost a year and in that time have been delighted with the number of patients who have paid cash for services rendered. This method converts a large percentage of daily business, which has heretofore been charged, into immediate cash payments, especially among the large middle class, which comprises the bulk of the average practice.—DR. GLENN W. PUTNAM, Aurora, Ill., in *Med. Economics*, Feb., 1936.

BOOKS

Communism in America

FOOLS GOLD. An Exposé of Un-American Activities and Political Action in the United States Since 1860. *By "The Senator from Alaska." New York: Madison and Marshall, Inc. 1936. Price, $2.00.*

The time is at hand, if it is not (as seems probable) already here, when the voters of the United States must decide, without equivocation, whether they desire to continue to live under the institutions and conditions which have permitted this country to make an unexampled growth and its people to attain the highest general standard of living ever seen in this world, or whether they desire to exchange such institutions and conditions for those now in effect in Soviet Russia and other communistic countries. The issue is clear-cut, and here is a book which should be in the hands of every voter, in order to assist him or her in making an *intelligent* decision in this vital matter, by setting forth the bald and *authenticated* facts.

Much has been written (but not widely enough distributed) in the past several years, in an attempt to explain the why and the wherefore of the powers now holding office in our Government. Now comes "Fools Gold," the most timely and enlightened book on the subject to make its appearance. It is not an attack on the Democratic Party nor any other party, but an exposé of the forces that stole the Democratic Party in 1932 and other Parties before that time. It is not an attack upon the President, but a graphic history of the theories he has supported. Nor is it an attack upon members of the "Brain Trust," but a revelation of the system that has been used to make them brain trusters.

The book is well documented and traces the philosophy of the "New Deal," from its inception (long ago) to the present day. It shows the background and histories of men now in Washington who were responsible for the successful steal of the Democratic Party in 1932, which they used as a vehicle upon which to ride into power. Evidence and proof of the methods used by these "New Dealers" (Socialists or Communists), to bore from within all classes of organizations, including the political parties, cannot fail to impress all American citizens with the need for immediate action to counteract these forces, if, after serious consideration, with the facts before them, they still desire to live under a Constitution.

"Fools Gold" also contains nine appendices, all of which are filled with factual information of the most vital import to every adherent to constitutional government. This volume will prove to be of special interest to those readers who have, in the past several years, had the temerity to voice their honest convictions regarding what was taking place at Washington, for, by presenting well-documented evidence, it sustains their position. No one ought to vote without having the clear knowledge of what that vote will mean, which is furnished by this remarkable book.

A PLANK FOR ALL POLITICAL PARTY PLATFORMS

The Federal Government should withdraw from all responsibility of supporting its citizens and abandon all non-government functions of government. Business regimentation, planned economies, price guaranties, crop control and competition with private business should be eliminated at once. This will result in drastic reduction in operating costs of government.—AMERICAN TAXPAYERS' LEAGUE.

THE SEMINAR

"A MONTHLY POSTGRADUATE COURSE"

(NOTE: Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussion of any or all problems submitted.

Discussions should reach this office not later than the 5th of the month following the appearance of the problem.

Address all communications intended for this department to The Seminar, care CLINICAL MEDICINE AND SURGERY, Waukegan, Ill.)

Problem No. 4 (Medical)

Presented by Dr. W. E. McKinley, Jewell, Kans.

(See CLIN. MED. AND SURG., April, 1936, p. 193).

RECAPITULATION: A girl of 20 years, whose grandfather had cancer and whose mother has diabetes, began to have severe headaches about two years ago, with pain in the back, nervousness, weakness, insomnia, and dizziness, but no symptoms of indigestion. Her menstruation has always been scant and irregular and her internal genitals are undeveloped. For the past two months she has had irregular daily fever. Her blood pressure runs from 142/76 to 158/84. Her leukocyte count is 5,300; sugar tolerance test, fasting, 100 mg. per 100 cc. of blood; after ½ hour, 114 mg.; 1 hour, 80.6 mg.; 2 hours, 66.6 mg.; 3 hours, 71.4 mg.; basal metabolism (2 tests) plus 18.5 and plus 11.0 percent; tachycardia (110). There is a heavy deposit of fat between her waist and her knees. Roentgenograms show abnormalities about the sella turcica.

Requirement: Suggest diagnosis and treatment, giving reasons.

Discussion by Dr. James H. Hutton, Chicago

The history of irregularity of the menstrual intervals and the finding of a small, undeveloped uterus and a small sella, indicate, of course, a pituitary and ovarian insufficiency. The latter condition is frequently accompanied by and, in some cases, causes an irregular temperature. I have observed this a number of times, and Engelbach made the unqualified statement that ovarian insufficiency was sometimes responsible for afternoon fever.

In spite of this fact, the occasional chills followed by sweating and the irregular fever would still raise the question in my mind of an infection as the causative factor. The history does not state what examinations preceded the statement that the nasal sinuses are normal, and before agreeing to that statement, I should wish them studied roentgenographically, after an attempt has been made to fill them with some opaque material.

While the search for an infection goes on, the treatment of the undoubted pituitary and ovarian insufficiency could be carried out by means of small doses of the pituitary sex hormone, such as Prephysin, Antuitrin-S or Follutein, 0.5 cc. three times a week, and Theelin or Amniotin or some other ovarian hormone preparation, 1 ampule three times a week up to the week preceding the onset of the menstrual period, when corpus luteum should be given, 1 ampule twice a week.

Discussion by Dr. Maximilian Kern, Chicago

The problem presented by Dr. McKinley has been prepared so carefully that a solution ought to be rather simple, yet the differential diagnosis becomes more difficult because of the care with which the problem was studied. Let me illustrate: First, on the basis of the report of the stereo-roentgenogram, which shows, "The posterior clinoid processes come well forward, so that the superior opening of the sella turcica is very narrow, with some calcification of the superior ligament across the top of the sella; and within the sella is a small area of increased density," one would be inclined to suspect a pituitary lesion.

However, with such a condition one is justified in expecting an abnormal sugar tolerance. In this case the sugar tolerance test is apparently normal, showing a fasting sugar of 100 mg. and a peak of 114 mg. after one-half hour (which is usually expected to take place after an hour), and a low blood sugar of 80.6 mg. after one hour, which ordinarily would be expected after two or three hours.

In a pituitary condition which would come on at this age, one would expect polyuria and polydipsia and, in the event of an in-

volvement sufficient to produce symptoms, the optic chiasm might be involved sufficiently to cause a contracted field of vision, of which no mention is made in this report. However, the patient undoubtedly would have observed limited vision, such as half objects, etc.

The report states that the patient "lost a little (?) weight," is tired all of the time, nervous, easily upset and sleeps well only with a sedative. This report would make one suspicious of a thyrotoxic condition, which is somewhat corroborated by the basal metabolism report which at one time was plus 18.5. This reading, however, would be of no significance when one considers the nervous temperament of the patient and also the irregular fever. As a matter of fact, one could not make a diagnosis of a thyrotoxic condition based upon any metabolic reading in the presence of a rise in temperature. The thyroid history should, however, be gone into more carefully and such observations as tremor, inability to tolerate heat, crying spells, vasomotor skin manifestations, etc., should be investigated.

Before I would be willing to make a definite diagnosis in this case, I would be inclined to investigate the kidney function and have a report based upon the following.

1.—Catheterized specimen and culture.

2.—Search for presence or absence of acid-fast organisms.

3.—Intravenous urography.

I strongly suspect that the pathosis may be found in the genito-urinary tract, because a tuberculous kidney cannot be ruled out in this case.

Discussion by Dr. Geo. B. Lake, Waukegan, Ill.*

The whole picture of this young woman's case looks, primarily, like a complex endocrine disturbance, involving chiefly the thyroid and pituitary glands.

Thyrotoxicosis is suggested by: (1) Scant and irregular menstruation; (2) headaches; (3) dizziness; (4) insomnia; (5) "nervousness"; (6) general physical weakness; (7) "good" (perhaps ferocious?) appetite; (8) occasional chills, followed by sweating (circulatory disorders); (9) high blood pressure (especially the high *pulse pressure);* (10) tachycardia; (11) increased basal metabolic rate (even though this is not especially marked); (12) undeveloped internal genital organs (suggesting, also, deficient ovarian secretion); and (13) long-continued daily fever, which, while not common in hyperthyroidism, may be a feature of that condition.

Pointing to acquired pituitary disorder we find: (1) Characteristic fat distribution; (2) menstrual disturbances; (3) the roentgenologic findings; (4) the headaches, which might easily be due to the pressure of a pituitary tumor upon the closed-in sella turcica.

The low blood-sugar figures two and three hours after the ingestion of dextrose and the history of diabetes in the mother suggest *hyperinsulinism,* which may also be an endocrine disorder.

There are a couple of other points that call for further explanation; the moderate but definite leukopenia (a differential leukocyte count would be helpful) and (unless the decimal point is misplaced) the great increase in the urinary chlorides—ten times the normal amount.

Before a plan of treatment can be outlined intelligently, this case must have a good deal more study along the lines here mentioned; but one or two suggestions can be advanced, tentatively. If a pituitary tumor can be demonstrated, it might be well to try x-ray treatment, along with pituitary medication to correct the deficiency of glandular secretion. If thyrotoxicosis is demonstrated, physical and psychic rest should be insisted upon and Lugol's solution might be given, cautiously, or Houda's goiter vaccine might be tried.

The insulin function might well be studied by the methods presented in the series of articles by Dr. Powell, in this Journal. If hyperinsulinism is demonstrated, his dietary treatment should be tried. In fact, this might clear up many of the obscure symptoms.

Closing Comments by Dr. McKinley

On account of the menstrual disturbances and other evidences of endocrine disorder, I gave this patient ovarian substance and pituitrin, with ¼ grain of thyroid, in capsules. When she was where I could see her often, I gave her injections of Antuitrin-S and Theelin, this was for only a short time, as she left this town.

On February 7, 1936, she wrote me that, while she was still having rather severe headaches, she was sleeping somewhat better and her general mental condition and outlook on life had improved. Her appetite, especially for sweets, was still too good.

Early in April, she wrote that she was feeling decidedly better, working actively every day, and indulging in simple social activities.

On April 26, I had an opportunity to examine her, and found her condition much improved. Her pulse was 82; temperature, 98° F.; urine, normal; blood pressure, 120/70; basal metabolic rate, minus 7; weight, 157 pounds; backache relieved.

I have diagnosed her case as pituitary tumor, with associated dysfunction of the ovaries and thyroid, and have been giving her ovarian substance, anterior pituitary and thyroid for about one year, with results which are pleasing to her and to me.

(Continued on Page 307)

*This discussion embodies the substance of a letter written to Dr. McKinley immediately after the receipt of the problem.

CLINICAL NOTES and ABSTRACTS

Intravenous Injections of Hydrochloric Acid

THANKS to Dr. Ferguson and others, intravenous injections of hydrochloric acid have now become an established fact. They are harmless; they are active; and they can definitely alleviate some conditions which are found resistant to other forms of medication.

I had read again and again, in CLINICAL MEDICINE AND SURGERY, about injecting hydrochloric acid intravenously, but had not the courage to actually try it. But the repeated writings in those pages convinced me of the harmlessness of the acid.

I prepared my own solution and first tried it on a patient who was suffering with chronic gonorrhea. He took about six injections without any apparent benefit. But I was satisfied that the injections did not bring about any untoward effect, although they proved useless.

After some months I was called to treat a case of puerperal sepsis, on the fourth day after the delivery. The temperature had risen to 106° F.; the pulse was 140 and thin; the general condition was bad. I was permitted to treat her only medically. The relatives would not allow me to handle the case by any other additional methods. I was short of antistreptococcal serum; I had lost faith in quinine injections; intravenous injections of iodine had not given satisfactory results; so I decided to try the acid injections. One was given the same day. The temperature was less by two degrees on the next day, and the patient was decidedly better. She completely recovered after two further injections.

My wife, aged 25 years, had suffered from severe attacks of headache since she was 6 years old. The pain used to appear first at the back of the neck. After a day or two, the maximum intensity of pain would be in the region of the vertex, but on the right side. It disappeared after 3 or 4 days, after the administration of some antineuralgics; but sometimes these drugs could not bring much relief.

Many diagnoses were suggested, but seemed inadequate. The ocular fundi were normal; the nose and throat specialist declared that he found nothing which could bring about that headache; the x-ray pictures did not help us.

A change to the seaside was advised, with some symptomatic treatment, and she was removed accordingly. The headache began to abate after 4 or 5 days and she was completely free from it after a month.

A year passed without any trouble; but again the headache reappeared, with no obvious cause for it. I thought of trying the injections, as I was sure that they were harmless, so hydrochloric acid was given. There was no change on that day, but the next day she felt better. The injection was repeated on the second and third days also, though the headache had disappeared by this time. I thought that this was mere coincidence. There was no question of psychic effect, because she was formerly treated by specialists in whom she had much belief.

The headache again appeared after five months, and the injection again had a positive beneficial effect. It has appeared three times since then, and she has been relieved by the acid solution, which takes about 24 hours to show its effect. I am indebted to Dr. Ferguson and to CLINICAL MEDICINE AND SURGERY for the help that I have obtained through them.

I have given more than 1,000 injections of acid up to now, and in no instance was there the slightest undesirable effect. I have seen positively good results in asthma, bronchitis, and puerperal sepsis. In typhoid fever it has not worked. In pneumonia I obtained encouraging results. I have treated 6 cases of early tuberculosis of the lungs with it, and all recovered. I treated one case of leprosy, and have found that the progress of the disease has stopped after 12 injections. I did not get good results in malaria. The acid solution has failed in cystitis and gonorrhea, acute or chronic. I do not know why. Perhaps there might be some defect in my solution. I prepare my own solution, and although its strength cannot be exact each time, still it is somewhere between 1:1,000 and 1:1,500.

I have found repeatedly that *the fresh solution acts best.* The results are not so good after it is three or four days old. I always use an all-glass syringe, because with metal syringes the nickel-plating is dissolved very early, so that the acid solution might contain a minute quantity of metal. Moreover, the

syringe becomes leaky at the joint formed by the metal portion to which the needle is attached and the lower end of the glass barrel.

V. K. Joshi, M.B., B.S.

Yadgiri, India.

Comments by Dr. Burr Ferguson

The foregoing clinical report from India is most gratifying to me, although I am much puzzled by the effect of the hydrochloric acid on this lifelong headache. I am put in the same quandary so often by my own patients in Birmingham, that I am not surprised to hear of an inexplicable good result in an ailment that had hitherto resisted all therapeutic effort, in India.

A correspondent of the *Medical World*, in the April, 1936, number, explains the helpful effect of the hydrochloric acid, 1:500, on an "excruciating headache," in an employee of a chemical plant, as follows: "I would assume, therefore, that the hydrochloric acid had supplied the necessary acid, to counterbalance the basic alkalinity, which is characteristic of some, if not all, allergic cases."

I, too, have had most satisfactory results with headaches, including one case of eleven years' history, where the patient had made protracted visits to Hot Springs and to certain baths in Indiana, with no effect on the headache. I used sprays of hydrochloric acid, for its effect on possible foci of infection in the nasal passages; enemas of hydrochloric acid, for its effect on possible invading organisms in the rectum or anus; and intravenous injections of hydrochloric acid, for its effect on any harmful micro-organisms that might have escaped the germicidal action of the local applications of the acid. An elevated leukocyte count, at the first visit, indicated that the patient was infected; after this most liberal use of the acid, the headache was gone and the leukocyte count was normal.

I think that Dr. Joshi will make another and somewhat different report on gonorrhea if he will give, intravenously, 15 to 20 cc. of a 1:500 solution of hydrochloric acid, C.P., in triple-distilled water, every other day; and for the cystitis inject into the bladder 40 to 50 cc. of an acid solution of the same strength, allowing it to remain until the next micturition. Do this three times a week.

In Dr. Joshi's puerperal sepsis case, I think the 2-degree drop in temperature would have been much greater if, besides the intravenous injection of the acid, he had also used a douche containing 4 cc. of HCl, C.P., to the quart of sterilized water, and given an intravenous injection one-half as strong, or 1:500. A 1:250 solution frequently occludes the vein at the site of the injection, although I often use it in this strength in large veins.

It would seem to me that we might deduce, from the wide variety of infections reported by Dr. Joshi and the effects following the injection of hydrochloric acid, that a prompt stimulation of the first line of defense (the white blood cells), a doubling of the oxygen content of the red cells (Dr. Paul Roth), and some unknown good effect on the acid-base balance of the body, makes hydrochloric acid a useful agent in the treatment of infective diseases.

B.F.

Birmingham, Ala.

The Bactericide Principle of Maggots

THE surgical use of maggots in the treatment of suppurating cavities, particularly those involving the long bones, has yielded gratifying results in a large proportion of instances, but the nature of the curative property possessed by maggots in their action against pyogenic infections has been an undetermined factor. It is of particular interest, therefore, that Simmons[1] has been able to obtain a potent bactericidal principle from maggots, which, in vitro, is capable of killing completely all organisms in saline and broth suspensions.

Unlike the ordinary disinfectants now in common use, the material obtained from the maggots exhibited a lesser decrease in potency following the addition of organic material to the broth cultures. The exact mode of action by which this substance destroys bacteria is yet not clear. That it is not a bacteriophage has been demonstrated by its thermostability and by other reactions. It does not cause the death of organisms by lysis. In itself, it is nonviable and cannot be destroyed by the ordinary process of autoclaving for twenty minutes at ten pounds' pressure. Simmons was able to desiccate this material and to demonstrate that, in this condition, it retained its bactericidal property for a period longer than when preserved in aqueous solution.

To a degree, the presence of this substance would explain the remarkable results of maggot therapy against infections caused by hemolytic streptococci, *Staphylococcus aureus*, and *Clostridium welchii*. Since the use of live maggots is not always feasible, for one or another reason, the isolation of their germicidal principle and its preservation in desiccated form may eventually afford a means of disinfection more dependable than those now employed.

A new field has been opened for the investigation of living organisms as a potential source of useful and hitherto unknown

1.—Simmons, S. W.: Bactericidal Principle in Excretions of Surgical Maggots Which Destroys Important Etiologic Agents of Pyogenic Infections. *Baltimore Journal of Bacteriology*, 30:253, Sept., 1935.

bactericides which may prove to be of inestimable value in the treatment of bacterial suppuration.

Continuous Control of Acidity in Peptic Ulcer by the Aluminum Hydroxide Drip*

THE continuous twenty-four hour absorption of gastric acidity by aluminum hydroxide has promise of definite usefulness in the treatment of the acute stage of peptic ulcer.

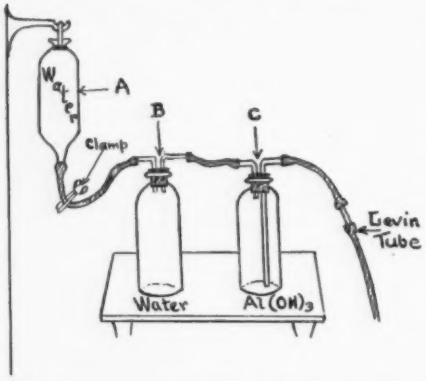

Fig. 1.—Apparatus for Aluminum Hydroxide Drip.

If reliance is placed on antacid treatment, there is every reason to carry it out in the most thorough and continuous manner. The aluminum hydroxide drip is free from the danger of alkalosis and of secondary acid secretion. The method is entirely compatible with any type of dietetic or sedative treatment. Because of continuous neutralization, the diet can be suited more definitely to the nutritional needs of the patient, rather than crowded in frequent feedings to control acidity. Functional rest of both the secretory and motor function of the stomach may be allowed in larger measure. Especially for the intractable case, before surgery is resorted to, this method represents an additional refinement of technic in medical management.

Method of Procedure

A small Levin tube, size 12, is passed through the patient's nostril into his stomach. A specimen of gastric content is withdrawn for analysis and also to show that the tip of the tube is in the stomach. About 200 cc. of 7-percent colloidal aluminum hydroxide is added to 600 cc. of distilled water and stirred until well mixed. The 800 cc. of the diluted aluminum hydroxide is poured into bottle C (Fig. 1). The gravity flask A is filled with water while the clamp is closed. Allow the aluminum hydroxide to siphon from bottle C into a pan until it ceases. At this time there is a negative pressure created in bottle B and above the fluid level in bottle C. Now connect the tube to the Levin tube and adjust the clamp beneath flask A so that the water will drip from flask A into bottle B at the rate of 5 or 6 drops per minute. Each drop creates that much positive pressure in bottle B and causes a drop to drip from the end of the Levin tube into the stomach. As the fluid level rises in bottle B it will cause the fluid level to fall proportionally in bottle C, and at the rate of 5 or 6 drops per minute it will take 24 hours to be completely empty. The entire system must be air tight.

DRS. E. E. WOLDMAN AND V. C. ROWLAND.
Cleveland, Ohio.

*Am. J. Digest. Dis. & Nutrition, Feb., 1936.

Hay Fever "Cures"

A STUDY of the literature will show that from 25 to 75 percent of cases of hay fever are reported as "cured" by several annual courses of pollen antigens: *But* it should be remembered that a man may be "cured" in Boston, where the maximum pollen count is about 50, and still have severe hay fever symptoms in Chicago, where the count is 500 or more.

In this connection, a study of the article on "Hypersensitiveness," by Dr. S. W. French, in CLIN. MED. AND SURG. for Aug., 1928 will be highly instructive.

GEO. B. LAKE, M.D.
Waukegan, Ill.

Uterine Bleeding*

FOR women in middle life, especially if there has been prolonged uterine bleeding, I would advise curettage because it will check the bleeding temporarily and also rule out the possible presence of serious lesions such as cancer. At the first sign of recurrent excessive bleeding, Antuitrin-S should be used, before the endometrium becomes hyperplastic. If the patient is near the menopause it is wise to end the menstrual function by the use of radium or x-rays. For this purpose intrauterine applications of radium, in not too large amounts, may be the treatment of choice, because it could accomplish the result with not too much damage to the ovaries. Adequate doses of the hormone estrin will combat the consequent vasomotor menopausal symptoms. I have used 1 cc. of Menformon daily, intramuscularly, for from 10 to 20 doses, or tablets of 1,000 units daily, by mouth, until the symptoms are relieved.

In selected cases of fibroids, radium is ideal because it carries with it no mortality

*Radiol. Rev., Jan., 1936.

and, if it is properly used, there is no morbidity. An ideal case for the use of radium is one in which the tumor is not larger than a three months' pregnancy and there is no pain, laceration or cervicitis. Surgery should be used in the presence of large fibroids or of small ones associated with lacerations or other pelvic pathologic conditions.

THOMAS E. JONES, M.D., F.A.C.S.
Cleveland, O.

Poison Ivy*

IF one has come into contact with poison ivy, the best method is to wash the exposed areas of the skin immediately with soap and hot water. Yellow laundry soap is recommended as best, since this contains an excess of alkali which dissolves the poison. It is advisable for sensitive persons to take this precaution after every trip through the fields where poison ivy may grow, whether actual contact has taken place or not.

Sometimes sensitive persons on a scientific excursion may find it necessary to pass through areas where poison ivy is growing, and it is desirable that these persons have some type of protection. Dr. McNair suggests that the hands and arms be bathed in a 5-percent solution of ferric chloride, in equal parts of glycerin and water, before the sensitive person ventures into the infected places. Another preventive suggested is to bathe the exposed parts of the skin with a 5-percent solution of copperas (ferrous sulphate) before visiting those areas.

One should always remember that, in the majority of cases, it is the hands that come in contact with the poisonous plant. The hands get covered with the poison, which is then carried to any other portion of the body that the hands may happen to touch. If one suspects that one has touched poison ivy, one should be careful not to spread the poison by rubbing the face or arms or touching any other part until one has thoroughly washed the poison off the hands.

A large number of remedies has been suggested, and in particular cases many of these are successful. In my own experience I have found an oxidizing agent is the most rational and satisfactory treatment. Toxicodendrol is very susceptible to oxidation and if brought into contact with some substance capable of liberating oxygen it will be converted into an inert resin that can not cause blistering. One of the cheapest, most common and harmless oxidizing agents is *potassium permanganate*. In a strength of 5 percent in water, potassium permanganate stops the itching almost immediately by destroying the poison, and so gives quick relief. It may be applied as a wash, using a piece of absorbent cotton or cloth and dabbing it on the affected spots until the itching stops. Blisters should be opened with a sterile needle to allow the remedy to come in contact with whatever poison may be contained inside them.

The stain may be removed slowly by washing with soap and water or, more quickly, by a one-percent solution of oxalic acid or by sodium bisulphite (sodium hyposulphite of the photographers), or by hydrogen peroxide, although the warmth occasioned by the last mentioned may be disagreeable to some people. The oxalic acid will cause a stinging of raw surfaces which, however, is mild and not objectionable to most persons.

Generally one thorough application of potassium permanganate is sufficient, but stubborn cases may require several applications. The permanganate is harmless to the most delicate skins, particularly if the skin be washed thoroughly after each application. After itching has stopped, the affected area should be allowed to heal under antiseptic conditions. A soothing ointment, such as zinc oxide or boric acid ointments, should be spread gently over the skin to assist nature in repairing the injured tissues.

JAMES F. COUCH, M.D.
Washington, D.C.

The Scientific Monthly, May, 1936.

Look for FACTS AND COMMENTS among the advertising pages at the back.

Ergotamine Tartrate, Amniotin and Phenobarbital in the Treatment of Migraine*

THE results of the treatment of a group of migrainous patients with the oral administration of ergotamine tartrate, Amniotin and phenobarbital are summarized below.

The dosage was as follows: Of ergotamine tartrate, 1 mg. was given by mouth twice daily; in the case of the adult women who were treated with Amniotin 5 cc., divided into three equal doses, were given daily, by mouth; phenobarbital was given in doses of ½ grain (32 mg.) three times daily.

It was demonstrated that certain types of patients responded to certain forms of therapy, but none of the types were resistant to other forms of treatment. The oral use of ergotamine tartrate is effective in male adults with either simple or ophthalmic migraine, and in children of either sex. It also is effective in adult females who suffer from the simple type of migraine; no definite statement can be made as to its value in ophthalmic migraine occurring in adult females. It is useful in women who are in the menopause. Colored

Bull. Neurol. Inst. New York, Dec., 1935.

women respond well to oral ergotamine tartrate therapy.

Oral doses of Amniotin are frequently useful in women who suffer from either the simple or ophthalmic type of migraine. The existence of the menopause, whether natural or artificial, appears to be immaterial in the response to this treatment.

With both forms of treatment, women who have never been pregnant respond better than other women. Women whose migraine did not start until after the last pregnancy respond well to Amniotin.

Phenobarbital was helpful in a small group of patients. Among these the ophthalmic type of attack predominates.

No facts connected with abnormalities of menstruation or of the sella turcica appear to have any relation to success or failure with any of these modes of treatment. The age at the time of treatment or at the onset of the condition and the duration of the migraine also appear to be without such relation.

SAMUEL E. SOLTZ, M.D.,
RICHARD M. BRICKNER, M.D.
HENRY ASOP RILEY, M.D., and
LEON A. SALMON, M.D.
New York City.

Edwenil in Pansinusitis*

EARLY in the year, I used Edwenil in a very virulent case of pansinusitis, which was undoubtedly caused by a virulent strain of streptococcus. The patient was a boy of fourteen, with his right antrum so badly affected that it blocked drainage through the right frontal and ethmoid sinuses.

Almost immediately after I first saw him, he developed periositis of the under surface of the right side of the frontal bone, and eventually the infection broke through the anterior bony wall of the sinus and had to be opened under the eyebrow. Besides this, he had a very severe infection in his left antrum and what must have been a metastatic infection in the left sternoclavicular joint, which reached suppuration and had to be opened and drained. Added to this there was a swelling of the left wrist and left shoulder joint. This boy was running a high septic temperature, with frequent sweats.

During the height of the infection, I had a chance to use Edwenil for the first time. I gave 2 cc. every 12 hours for three days; then 2 cc. every 24 hours for six more days, with occasional injections thereafter.

In spite of the complications, which were more serious than I had ever encountered in such a case, we were successful and the boy showed a remarkable recovery. I feel confident that Edwenil deserves a good share of the credit for these splendid results. The frontal sinus drained externally from January 16 to February 25, and I was sure I should have to open it, to obtain more drainage. I am certain I should have done so had I not begun to use Edwenil, but beneficial results were noted within 48 hours after commencing this treatment.

JOHN T. TALBOT, M.D.
Portland, Ore.

Med. World, Mar., 1936.

Get all you pay for. Read and use the Ads.

Fighting Tuberculosis*

THE fight against tuberculosis, while it has made good progress, goes more slowly than that against the acute diseases, because it takes much longer to learn much about the former. A man can learn much about pneumonia in a few years, because he can see many cases, from start to finish, in that period. But tuberculosis lasts from childhood to old age (90 years, perhaps), so a man cannot really *know* it until he has lived as long as his patients do; and this disease is still the chief cause of death in persons between the ages of 20 and 40 years.

For 35 years we have had the means for *completely eradicating* tuberculosis at our disposal, but we seem to have been content merely to keep the disease in check. These means are: (1) The possibility of early diagnosis by means of the x-rays; and (2) the knowledge of its communicability, permitting us to segregate open cases in sanatoriums.

Our present preventative work is only 15 or 20 percent efficient. In 80 percent of cases the diagnosis is not made early, and it cannot be so made by physical examinations alone. We must use the x-rays, and we must tell the public about this so that they will expect it.

General surveys should be made in all schools, using the von Pirquet skin test, and all positive reactors should be studied with the x-rays. Such studies have shown that one percent of school children have active tuberculosis. We can then check the families of these children and all who have been in contact with them before and after their infection, segregate or control all active cases and follow them up.

Of all persons who have had serious pleurisy, 50 percent develop tuberculosis. We must watch these cases, and also those of silicosis and asbestosis, which also predispose to tuberculosis.

The responsibility begins with the family physician who first sees these patients and knows or can know all the circumstances.

Sanatorium treatment is the only satisfactory method for controlling and treating open

*Abstract (by G. B. L.) of a talk before the Lake County (Ill.) Tuberculosis Association, Feb. 5, 1936.

cases. Collapse therapy shortens the stay in hospital, but it keeps many patients alive for long periods and, if they are not watched, permits them to go on spreading infection.

JEROME R. HEAD, M.D.
Medical Director
Naperville (Ill.) Sanatorium.

Acacia Solution in Surgical Cases*

FOR the treatment of acute hemorrhage and the resulting shock, blood is the ideal fluid, because it increases the blood pressure, sustains it, and combats anemia. But there are many instances when immediate blood transfusion is not possible. It is necessary, in such conditions, to administer a fluid that will stay in the vessels, restore the volume of the blood, and maintain it until the normal fluid-regulating mechanism is again able to function. Acacia solution meets this demand most satisfactorily. Dextrose, or various salt solutions, administered in cases of shock from acute hemorrhage, temporarily raise the blood pressure, but maintain it at the higher level for only a short time. Both dextrose and salt solutions pass freely through the capillary walls and actually diffuse rapidly into the tissue fluids.

A 6-percent solution of acacia has the same viscosity as whole blood and the same osmotic pressure as the plasma. It has been demonstrated, in clinical cases, that this solution raises the osmotic pressure of the blood and maintains its volume. The acacia leaves the blood stream in about six days. It is detected in the urine immediately after injection and may be found in the blood and urine for as long as ten to fourteen days after administration.

In extremely dehydrated patients, the use of acacia is contraindicated. It is a better plan first to give fluids intravenously to hydrate the patient, and then inject the acacia solution. In some cases blood transfusion, following the injection of the acacia solution, may be indicated.

Citrated blood is incompatible with acacia solution. When the two are mixed, coagulation of the mixture occurs. It is important to take the precaution not to mix citrated blood in the container used for acacia. The container, tubes and needles used for the injection of acacia solution should be rinsed thoroughly with physiologic saline solution before using them for transfusion of citrated blood.

I have used acacia with sodium chloride ampules in my own cases. Each 100 cc. ampule contains 30 grams of acacia and 4.5 grams of sodium chloride. It is used after the contents of one ampule are diluted with sterile distilled water to make 500 cc. Ampules of acacia without sodium chloride are available for those who prefer them. Sodium chloride may be added during the preparation of the solution for use. In cases of nephrosis, acacia may be used without sodium chloride.

The injection is given with the same precautions as in any other intravenous injection. I prefer to use the gravity method. A good-sized (bore or gage) needle is necessary for the injection. To prevent sudden embarrassment of the heart, acacia solution should not be injected faster than 20 cc. per minute. The temperature of the solution should be about 100° F.

The response of the blood pressure will decide the amount of solution necessary for injection in each case. An injection of 500 to 1000 cc. of acacia solution is sufficient in a case of shock or hemorrhage. The dose may be repeated without hesitation if there is a drop in the blood pressure.

Sensitivity to acacia has been observed by Maytum and Magath, who made a careful study of the condition. It is important to keep in mind the possibility of such a reaction. I have not met with it in my experience.

P. J. SARMA, M.D., F.A.C.S.
Chicago, Ill.

*Abstract from the Ravenswood Hospital Medical Library, Chicago.

Vitamin Requirements in Pregnancy*

URNER gives an excellent summary of the influence of the action of the vitamins during pregnancy and lactation, and I shall quote from him:

Vitamin A affects the fertility of the experimental animal, even when deprivation is moderate. It may affect the development of the embryo, if the deprivation is severe. It is of importance in maintaining resistance to infection. Whether this protective effect extends to puerperal sepsis, is questionable.

Vitamin B is needed for ovulation in the experimental animal. Male sterility caused by degenerative changes in the germinal epithelium has been noted in experimental animals deprived of this vitamin. Vitamin B and its component, G, are needed for lactation, and adequate amounts are essential.

Vitamin C is needed for successful continuation of pregnancy to term in experimental animals. When inadequate amounts are provided, scurvy results. To this is probably related gingivitis and possibly dental caries, both of which appear to be beneficially affected by the use of vitamin C.

*Ill. Med. J., March, 1936.

Vitamin E is required for the proper development of the embryo and is also needed for the proper nutrition of the suckling young. An increased amount is needed during lactation.

Vitamin requirements can, for the most part, be supplied through the diet. The provision of a well-balanced dietary is an important part of proper pre-natal care.

W. C. DANFORTH, M.D.

Evanston, Ill.

Modification of Use of Wright's Stain

WHEN the blood smear is dry, it is placed over a water glass whose margin must describe an exact horizontal plane if the stain is to flow evenly. Wright's stain is then added (30 drops is the usual quantity), to cover the smear and, in two or three minutes, an equal quantity of specially prepared water is added.

Preparation of the water is the important step. To prepare the water, a gallon from the tap is drawn into a clean bottle and a smear stained in the usual way, to determine the hydrogen ion concentration; the author's water is too acid and requires about 5 percent NaOH per gallon. The percentage must be varied for every source. A few smears are then stained and NaOH added drop by drop until the desired tint is obtained. The important point to remember is that bad results come from the water. Once the proper hydrogen ion concentration is found, other factors, such as stains, time, etc., are of secondary importance.—DR. F. D. LAROCHELLE, in *J. Lab. & Clin. Med.*, May, 1932.

Treatment of Congenital Syphilis with Acetarsone*

OUR series includes 32 children from birth to eleven years of age. Our treatment is as follows: We give 5 mg. of acetarsone per kilo of the patient's body weight daily, in capsules, tablets, or in milk, for the first week, followed by 10 mg. per kilo daily for the second week; 15 mg. per kilo daily for the third week; and 20 mg. per kilo daily for the next six weeks. This is followed by six weekly intramuscular injections of 0.1 or 0.2 Gm. of a 10-percent bismuth preparation. Sixteen (16) patients had inadequate treatment.

Acetarsone seems to be more efficacious in infants under one year of age. Of 15 infants in this group, only 8 received adequate treatment, and, of these, 6 had reversal of the Wassermann reaction.

Of the 32 children treated, 25 showed remarkable clinical improvement, especially in gain in weight and in the disappearance of such lesions as skin manifestations, rhinitis, periostitis, condylomas and other mucous membrane lesions, epiphysitis, interstitial keratitis and Clutton's joint (syphilitic synovitis).

Although very few severe reactions to the drug were seen, it should be strongly emphasized that patients undergoing acetarsone treatment should be kept under close and careful observation; at the first sign of fever, vomiting, diarrhea or appearance of a rash the medication should be immediately discontinued.

This drug has many advantages over the previous therapy of congenital syphilis, which required weekly intravenous or intramuscular injections over a period of two years.

JAY M. ARENA, M.D.
and CHARLES H. GAY, M.D.

Durham, N. C.

*South. Med. and Surg., Feb., 1936.

The Advertisements are NEWS! Read and use them.

Induction of Labor by Artificial Rupture of the Membranes Without Quinine*

ARTIFICIAL rupture of the membranes is a method of advantage in inducing labor in selected cases. The absence of quinine in the induction is not a serious drawback, and in many cases it is an advantage, where idiosyncrasies to quinine are present, since it may save babies and mothers who might otherwise be lost.

Quinine is toxic to certain individuals, and has been ascribed as the cause of fetal deaths, and possibly of deafness in the child. For these reasons its use is not entirely safe in all cases, since those in whom untoward reactions are likely to occur cannot be predetermined.

Spontaneous premature rupture of the membranes is followed ultimately by the onset of pains. However, the onset may be delayed as long as two to three weeks, which apparently is not the case where some suitable prerupture preparation is used.

Intra-uterine manipulation with bags or catheters predisposes to sepsis and high maternal morbidity, which is obviated in cases induced by artificial rupture of the membranes.

Rupturing the membranes carries with it an element of fetal danger; namely, prolapsed cord and compound presentations. The first is likely to occur in any case of polyhydramnion, whatever the method of induction, and also in cases where the presenting

*South. M. J., March, 1936.

part is high. We believe that this complication is no more likely to occur in cases where quinine has been omitted, since Wilson and Guttmacher and Douglas reported a case in their series where quinine had been used. Selecting cases with the presenting part fairly well down, though not necessarily engaged, allowing the patient to be on her feet following the rupture, along with the use of a suitable instrument, which will permit the amniotic fluid to be released slowly instead of with a gush, will probably completely eliminate this complication.

Apparently artificial rupture is contraindicated in heart disease, in that a sudden escape of fluid may be the cause of cardiac collapse and death.

Castor oil plays an important rôle in the induction of labor. Just what its action is, is not clear. Suffice it to say that other cathartics fail to produce the same effect.

JOSEPH W. REDDOCH, M.D.
New Orleans, La.

Diagnosis of Infantile Scurvy*

THE diagnosis of infantile scurvy does not in reality present any serious difficulties. The progressive anemia; the painful pseudoparalysis of one or various limbs and the hemorrhages are generally sufficient to establish the diagnosis.

The painful pseudoparalysis is frequently mistaken for the syphilitic pseudoparalysis of Parrot, but this latter appears at two or three months of age, while that of scurvy never appears before five or six months. Moreover, the syphilitic pseudoparalysis of Parrot generally effects the upper limbs, while that of scurvy appears in the lower. Lastly, the story of the regimen to which the nursling has been subjected will usually differentiate between them.

Acute articular rheumatism, with which scurvy has frequently been confounded, never appears in infants less than one year old and its manifestations are strictly articular, whereas those of scurvy are periarticular.

The x-rays can give valuable help in doubtful cases. By this means of exploration one finds the subperiosteal hematoma in the form of a shadow less dark than those of the bones and radiating from them generally in a fusiform arrangement.

FERNANDO DE LA GARZA LOZANO, M.D.
Mexico.

*Revista Mexicana de Puericultura, March, 1935.

Circumcision

CIRCUMCISION is very good for future cleanliness, from the point of view of disease, but is very cruel at such a delicate age of a child as that at which it is usually performed. Further, the delicacy of sensation, so unique to the part involved, is lost once for all by the loss of the prepuce, which has its own peculiar function to perform in the future.—G. L. DESHMUKSH, M.B., B.S., Bombay, India, in *Journ. of Ayurveda* (Calcutta), Nov., 1935.

The Seminar

(Continued from Page 299)

Problem No. 6 (Surgical)

Presented by Dr. E. S. Pomeroy, Salt Lake City, Utah

A MAN, 69 years old, consulted a surgeon (a *good* one) two years ago, with classical symptoms of prostatic hypertrophy. The surgeon operated by the suprapubic route, found the prostate not large but closely adherent to the contiguous structures, and removed only one lobe of the gland. Convalescence was stormy and prolonged and the man has not been well since. The pathologist made a *tentative* diagnosis of lowgrade carcinoma.

Two years after this the man came to me complaining of persistent cystitis and painful micturition and reporting that there had been blood in his urine, continuously, for a year. He had lost 25 pounds in weight and looked pale and asthenic, with the facies of suffering. He had to urinate at least every hour, and often every ten minutes, day and night, and suffered from dribbling and dysuria. At times blood clots formed, which he expelled with agony.

Rectal examination of the prostate caused agonizing pain. The left lobe was absent. The right lobe, which blended with the seminal vesicle, was soft (nothing like the stony hardness of prostatic carcinoma) and exquisitely tender, but not greatly enlarged. It was useless to attempt cystoscopy, as the field would have been obscured by blood, and there might have been a severe hemorrhage.

Requirements: (1) What was the cause of the conditions presented? (2) What would *you* have done for this patient?

REVOLUTION

Material revolution—the attack of the poor on the rich, to take away their possessions—has never achieved anything.—BASIL KING, *in "The Conquest of Fear."*

DIAGNOSTIC POINTERS

The Control of Allergy

THERE is one factor, and it is indubitably an endocrine factor, that is being recognized more and more as having basic importance in resistance or immunity; this is the rôle of the adrenal glands. This is an essential part of the complex mechanism which gives protection against infection.

I find myself in heartiest agreement with the statement that the cause of allergic states is probably endocrine dysfunction. Until this can be demonstrated beyond peradventure, there is enough evidence of relationship between allergic and endocrine phenomena to compel the alert physician to prove the possibility of a dysendocrine background in all his allergic patients.—Dr. Henry R. Harrower, M.D., of Glendale, Calif., in *Am. Med.*, Dec., 1935.

Allergy, Toxicosis and the Endocrines

I AM convinced that all allergic manifestations occur only in toxic individuals; though not all toxic individuals show allergic symptoms. I am further convinced that allergic symptoms occur only in individuals who show a deficiency of the adrenal secretion (with vagotonia), and sometimes of the thyroid secretion also.—Dr. Wm. V. P. Garretson, in *Med. Rec.*, Jan. 1, 1936.

Diagnosis of Dementia Precox

THE following features are considered characteristic of schizophrenia (dementia precox): (1) A seclusive type of personality; (2) the appearance of defects of interest; (3) a gradual blunting of the emotions; and (4) development of peculiar mental trends and fantastic ideas, with odd, impulsive or negativistic conduct.—Dr. Ross E. Herold, in *N. Y. St. J. of M.*, Feb. 1, 1935.

Medullary Tumors of the Adrenals

SUDDEN attacks of sharply-rising blood pressure, nervousness, "hot flashes," transitory glycosuria, and other symptoms similar to those following an injection of epinephrin, should suggest the presence of a medullary tumor of the adrenal gland. If this condition is definitely demonstrated, operative removal of the tumor is indicated.—Dr. M. C. Pincoffs, Baltimore, Md.

Procaine in Oily Solutions

GABRIEL, of England, in *The Practitioner* (London), October, 1934, says that basic procaine, added to oily solutions of anesthetics, enhances their value. It does away with much of the discomfort which often follows the injection of such solutions and gives a quicker and better anesthesia.

Allergy, Autointoxication and Indicanuria

TO certain people an article or articles of diet are irritants to the digestive tract, and under the mild inflammatory condition thus produced the mucosa of the gut loses its ability of selective absorption, thus permitting toxic substances to enter the circulation, and these toxins have the same effect as toxins from other foci of infection, depending on their affinity and the individual's reaction. The lowered or destroyed selective absorption of the mucosa accounts for the varying amounts of indoxyl in the urine.—J. R. Sayers, M.C., U.S. Navy, *U. S. Nav. M. Bull.*, Jan., 1936.

Cancer Not Due to "Civilization"

CONTRARY to a rather general impression, cancer is now known to be as common among primitive and barbarous peoples as it is among those that are more civilized.—Dr. Israel Davidsohn, Chicago.

Retropharyngeal Abscess

THE diagnosis of retropharyngeal abscess becomes quite simple when a swelling in the posterior or lateral wall of the pharynx is found. The posterior wall bulges forward and accounts for the obstructive symptoms. The swelling may be low down in the pharynx, so that the base of the tongue should be strongly depressed in order to get a good view.—Dr. P. J. Sarma, of Chicago, in *Illinois M.J.*, Aug. 1932.

Breast Tumors

WHEN a substantial doubt exists about the nature of a microscopic section of a breast tumor, it is generally *not* cancer.—Dr. James Ewing, in *Bul. Am. Soc. for Control of Cancer*, Jan., 1933.

NEW BOOKS

Any book reviewed in these columns will be procured for our readers if the order, addressed to CLINICAL MEDICINE AND SURGERY, Medical & Dental Arts Bldg., Waukegan, Ill., is accompanied by a check for the published price of the book.

Pray thee, take care, that tak'st my book in hand,
To read it well; that is, to understand.
—BEN JONSON.

Murray: Examination of the Patient and Symptomatic Diagnosis

EXAMINATION OF THE PATIENT AND SYMPTOMATIC DIAGNOSIS. *By John Watts Murray, M.D. With Two Hundred Seventy-Four Illustrations. Second Edition. St. Louis: C. V. Mosby Company. 1936. Price, $10.00.*

One of the main points stressed by Dr. Murray is that the general practitioner is usually the first to see disease in its earliest stages, before the occurrence of structural damage, and hence at a time when treatment, if properly applied, is likely to be most effective. It is, therefore, of vital necessity that such practitioners should be competent, not only to make a general medical examination properly, but also to evaluate correctly such symptoms as they may elicit. This book represents an attempt to simplify the general practitioner's problem by presenting a logical guide for the study of his patient, and for the analysis and interpretation of symptoms.

There are two main sections. Section I covers general consideration of history-taking. Section II contains the outlines, in distinct chapters, for the complete examination of single organs or systems of the body. The symptoms resulting from diseases of a single organ or system are considered in detail with reference to diseases of that special organ or system. The method of procedure is interrogatory as regards symptoms, habits, etc.

The author pays special attention to the commoner ailments which may ultimately endanger life and are always a cause of worry to the patient. He believes that there is need for better work in the diagnosis of these common ailments. In this second edition of the book much new material on the diagnosis of common ailments has been added.

The general scheme is to obtain a history that is broad and thorough enough to embrace and identify all the causal conditions and symptoms and thus aid the examining physician to make an accurate diagnosis quickly and to formulate a correct line of treatment.

Dr. Murray's book of over 1,200 pages represents a vast amount of painstaking work. The methods of examination suggested should, if followed carefully, prove to be of very great aid to general practitioners as furnishing orderly, systematic and generally complete procedures. There are 275 illustrations to elucidate the text.

French: Differential Diagnosis

AN INDEX OF DIFFERENTIAL DIAGNOSIS OF MAIN SYMPTOMS. By Various Writers. *Edited by Herbert French, C.V.O., C.B.E., M.A., M.D. Oxon., F.R.C.P. Lond., Consulting Physician to Guy's Hospital; late Physician to H. M. Household. Fifth Edition. With 742 Illustrations, of which 196 are Colored. Baltimore: William Wood and Company. 1936. Price, $16.00.*

The groundwork of all medical practice is diagnosis, and the physicians who know this field well and use therapeutic common sense are the successful ones.

Most American physicians or surgeons know "French." To many of them it has, for many years, been one of the most frequently used and most highly appreciated books they possess—a veritable bible of authority and reliability, and a guide in that most important and difficult of all daily problems, prompt and accurate diagnosis. It is indeed an invaluable mainstay in clinical medicine, covering almost the entire field, including surgery, gynecology, ophthalmology, dermatology and neurology. The new and thoroughly revised fifth edition is just ready.

The main body of the book is, first, an index of symptoms, or rather articles describing symptoms, arranged alphabetically; second, a work of differential diagnosis, discussing the methods of distinguishing between the various diseases in which each symptom may be observed; third a general index of 200 pages, giving 90,000 references to symptoms and listing them under the various diseases in which they occur. All of the parts are best used together. One has to use one's intelligence and full knowledge of the case, but many physicians find it a great aid and guide to diagnosis, especially in really difficult cases.

To those who do not know this work, the price may seem high, but it should be remembered that this is a one-volume library of nearly 1,200 pages, covering an immense field in a unique way. Moreover, the cost is

$2.00 less than that of the fourth edition, while the book is just as large and well made. It is well worth the price.

Bailey: Surgical Diagnosis

DEMONSTRATIONS OF PHYSICAL SIGNS IN CLINICAL SURGERY. *By Hamilton Bailey, F.R.C.S. (Eng.), Surgeon, Royal Northern Hospital, London; Surgeon and Urologist, Essex County Council; Consulting Surgeon, Clacton Hospital; Late Assistant Surgeon, Liverpool Royal Infirmary; Surgical First Assistant, London Hospital. Fifth Edition, Revised, with 341 Illustrations, Some of Which are in Color. Baltimore: William Wood and Company. 1935. Price, $6.50.*

The younger physicians tend to rely too much upon laboratories and elaborate hospital equipment, and it is refreshing to encounter a book like this, which proceeds upon the sound assumption that the history of the patient and the physical examination form the basis of diagnosis.

In this thoroughly practical handbook, based upon demonstrations given to students at the Liverpool Royal Infirmary, practitioners and students will find a clear, direct, and illuminating picture of the physical signs and symptoms which are met with every day in an active medical practice, with an adequate discussion of their significance. The illustrations, many of which are in full color, average more than one to a page and are remarkable for the light they throw upon the text. The result is that a study of this moderate-sized and convenient volume is almost equivalent to spending several weeks with an excellent teacher in the surgical wards of a large hospital.

No man who is actually taking care of sick people can afford to miss the genuine and readily available help which this volume will place at his finger tips. It is an indispensable book.

Manson: Tropical Diseases

MANSON'S TROPICAL DISEASES. A Manual of the Diseases of Warm Climates. *Edited by Philip H. Manson-Bahr, D.S.O., M.A., M.D., D.T.M. and H. Cantab., F.R.C.P. Lond. Physician to the Hospital for Tropical Diseases, London, the Albert Dock Hospital and the Tilbury Hospital; Consulting Physician to the Colonial Office and Crown Agents for the Colonies; Deputy Director, Division of Clinical Medicine, London School of Hygiene and Tropical Medicine, etc. Tenth Edition, Revised. With 22 Color Plates, 15 Half-Tone Plates, 381 Figures in the Text, 6 Maps and 38 Charts. Baltimore: William Wood and Company. 1936. Price, $11.00.*

This famous international standard manual of the diseases of warm climates is the basis on which most of the teaching and practice of tropical medicine has been built. With the rapid development of faster transportation between countries, tropical or environmental medicine is assuming greater significance. All American physicians, particularly those resident in our seaports and our coastal and southern states, need to know something of tropical diseases. Naturally all physicians in tropical or semi-tropical countries, find Manson's authoritative and reliable manual quite indispensable.

In the six years since publication of the ninth edition, science has made many advances, particularly in the department of virus diseases, so that the editor has found it necessary to make a very thorough revision. The special feature of this edition is the greater concentration on the clinical aspects, with more detailed instruction in treatment. Expansion in this direction has led to a more natural and etiologic classification of tropical diseases, and the elimination of much nonessential scientific matter in the field of medical zoology. From the physician's standpoint the book is more valuable than ever.

This is an important reference volume for the library of all physicians.

Donaldson *et al*: Early Diagnosis of Malignant Disease

THE EARLY DIAGNOSIS OF MALIGNANT DISEASE. For the Use of General Practitioners. *By Malcolm Donaldson, F.R.C.S. (Eng.), M.B., B.Ch. (Cantab.), F.C.O.G., Physician Accoucheur and Director of Cancer Dept., St. Bartholomew's Hospital, etc.; Stanford Cade, F.R.C.S. (Eng.), Surgeon to Out-Patients, Westminster Hospital; Surgeon, Mount Vernon Hospital, Northwood; William Douglas Harmer, M.A. (Camb.), M.C. (Camb.), F.R.C.S. (Eng.) Consulting Surgeon Throat Dept. St. Bartholomew's Hospital, Northwood; R. Ogier Ward, M.Ch. (Oxon.), F.R.C.S. (Eng.), Assistant Surgeon, St. Peter's Hospital; Genito-Urinary Surgeon, Mount Vernon Hospital, Northwood; Arthur Tudor Edwards, M.A. (Camb.), M.D., M.Ch. (Camb.), F.R.C.S. (Eng.), Surgeon, Westminster Hospital; Surgeon Brompton Hospital for Diseases of Chest and Queen Mary's Hospital, Roehampton, etc. Oxford University Press, London: Humphrey Milford. 1936. Price, $3.00.*

The whole object of this book is to remind the general practitioner of the essential points in making a provisional diagnosis of malignant disease. There are 12 chapters, each one of which is devoted to the special early diagnostic features in malignant diseases (cancer especially) in different regions or organs of the body.

The opinion is expressed that too much stress may be placed on the value of widespread public education regarding symptoms of malignant disease. Such propaganda may create more fear than it allays and be responsible for much neurasthenia. A better way would be to encourage periodic general health overhauls of people beyond the age of forty years, by their own medical advisers who, when the case warrants it, should inform their patients definitely that there is no sign of cancer. The book has been written in support of this viewpoint, so that general practitioners, in making periodic examinations, may be con-

versant with the signs in various regions which suggest cancer or a suspicion of it. Although cancer is widespread, many general practitioners do not have much experience in the diagnosis of early cases, especially when cancer involves the less commonly attacked organs.

Haden: Dental Infection and Systemic Disease

DENTAL INFECTION AND SYSTEMIC DISEASE. *By Russell L. Haden, M.A., M.D., Chief of the Medical Division, Cleveland Clinic, Cleveland, Ohio; Formerly Professor of Experimental Medicine, University of Kansas School of Medicine, Kansas City; Formerly Director of Medical Research, Deaner Institute, Kansas City, Missouri. Second Edition, Revised. Illustrated with 63 Engravings. Philadelphia: Lea & Febiger. 1936. Price, $2.50.*

The main purpose of the author is to assign to dental disease its proper place as a causative factor in generalized infections, and he records a vast amount of clinical and experimental work covering practically every phase of the problem. Without overemphasizing or underestimating the importance of focal infection, the findings establish the principle that it must at least be considered in medical diagnosis; the correlation of clinical results and experimental manifestations in individual cases has been found very illuminating in investigating cases of heart and cardiovascular disease which apparently denoted elective localization of bacteria from dental foci.

Of the nine chapters which make up the book, the clinician will find Chapters V and VII the most interesting. Chapter V covers the types of systemic disease associated with chronic dental infections, and Chapter VII gives case histories illustrating the relation of dental infection to systemic disease. The author indicates when the removal of dental infection is desirable, and when its dangers prohibit such a course.

This second edition of the book gives full information concerning the bacteriology of dental infection, the pathogenicity of its organisms, the types of disease that may result from it and the experimental proof of the relation of infected teeth to metastatic disease; it meets a real need in supplying clinicians, both medical and dental, with this essential knowledge in compact, definite, well-organized and well-indexed form.

Woods: Diseases of the Ear

PAINFUL AND DANGEROUS DISEASES OF THE EAR. A Text-Book for Students and General Practitioners. *By R. R. Woods, M.B., F.R.S.I., Surgeon in Charge of the Ear, Nose, and Throat Department, Sir Patrick Dun's Hospital, Dublin. Oxford University Press, London: Humphrey Milford. 1936. Price, $5.25.*

As the author remarks, there is always a difficulty in determining just how much of a specialty should be taught to students of general medicine.

This book is the outcome of a series of clinical lectures given by the author, who is an otorhinolaryngologic specialist, to the students of a large general hospital. It is intended to fill the gap between the larger manuals of otology and the students' handbooks, which treat essential subjects with insufficient detail. It describes those aspects of otology with which the general practitioner may have to deal, thus justifying the subtitle to the book: "A Text-Book for Students and General Practitioners."

There are four divisions: Introduction; Uncomplicated Inflammations; Acute Mastoiditis; and Intracranial Complications. The chapter devoted to methods of examination is excellent.

In every way, this little manual of general otology seems to be especially well suited to the needs of the medical student and general practitioner. There is a good index.

Sutherland: Tuberculin Handbook

THE TUBERCULIN HANDBOOK. *By Halliday Sutherland, M.D., Honorary Physician to the Queen Alexandra Sanatorium Fund; Sometime Resident Physician Royal Victoria Hospital, Edinburgh; Medical Superintendent Westmorland Sanatorium; Tuberculosis Officer, St. Marylebone Dispensary, etc. Oxford University Press, London: Humphrey Milford. 1936. Price, $2.75.*

There is still much difference of opinion regarding the diagnostic and therapeutic value of tuberculin. After twenty-five years' experience, the author believes that, apart from his discovery of the tubercle bacillus, tuberculin in the diagnosis and treatment of tuberculosis was Koch's greatest gift to mankind.

In the seven chapters comprising this handbook the author gives full details of the cutaneous, intracutaneous and subcutaneous tuberculin tests, as well as the procedure and results of tuberculin treatment.

Savill: The Hair and Scalp

THE HAIR AND SCALP. A Clinical Study (With a Chapter on Hirsuties). *By Agnes Savill, M.A., M.D. (Glasg.), M.R.C.P.I., Consulting Physician to Fitzroy Square Skin Hospital; Formerly Physician to St. John's Hospital for Skin Diseases, Leicester Square; To the Skin Department, South London Hospital for Women; And Chief (During the War) of the Electrotherapeutic Department, Scottish Women's Hospital, Royaumont, France. Baltimore: William Wood & Company. 1935. Price, $5.00.*

The average practitioner regards maladies connected with the scalp and the hair as more or less trivial, and the average layman considers the common maladies of this type as coming within the domain of cosmetics. But no disease, however slight, is outside the field of medicine and many of the affections of the scalp and hair are serious enough to give a tragic tinge to the lives of those suffering from them.

Dr. Savill's book is intended for physicians' and students' use. It gives the structure and physiology of the scalp and hair and discusses the causes and treatment of their commoner diseases. The great attention which has been given in recent years, especially by women, to the hair, and the extended use of dyes and other chemicals, make a book of this kind, which gives authoritative information, very useful.

Cope: Early Diagnosis of Acute Abdomen

THE EARLY DIAGNOSIS OF THE ACUTE ABDOMEN. *By Zachary Cope, B.A., M.D., M.S., London, F.R.C.S. Eng., Surgeon to St. Mary's Hospital, Paddington; Senior Surgeon to the Bolingbroke Hospital, Wandsworth Common; Late Hunterian Professor, and Arris and Gale Lecturer, Royal College of Surgeons. Seventh Edition. New York: Oxford University Press. 1935. Price, $3.75.*

This monograph on the early diagnosis of the group of cases comprised under the appellation of "acute abdomen" has run into seven editions since its first appearance in 1921.

There are eighteen chapters, each of which deals with the symptomatology of particular conditions which give rise to acute abdominal distress; the special diagnostic and differential diagnostic points in each condition are also considered. One chapter is devoted to conditions which may simulate the acute abdomen. The author includes some diagnostic points which he believes are new or to which but little attention has been previously paid. Although most diagnoses are reached following physical exploration of the patient, the value of roentgenograms is conceded.

The book is an excellent summary of the clinical signs and symptoms which, in the early stages, differentiate the varied conditions which manifest themselves by acute abdominal distress.

Samuels: Diseases of the Peripheral Arteries

THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE PERIPHERAL ARTERIES. *By Saul S. Samuels, A.M., M.D., Chief of the Clinic for Peripheral Arterial Diseases, Fourth Division, Bellevue Hospital, New York; Chief of the Department of Arterial Diseases, Stuyvesant Polyclinic Hospital, New York; Fellow in Surgery, New York Academy of Medicine. New York: Oxford University Press. 1936. Price, $3.50.*

The primary purpose of this monograph is to offer scientific proof of the fact that a new viewpoint on the peripheral arterial diseases must be taken. The old idea, that every case of thrombo-angiitis obliterans must sooner or later terminate in a series of amputations, must be considered a relic of medieval surgery.

The author's views and conclusions are based on the examination and treatment of over 350 cases of thrombo-angiitis obliterans and of a large number of cases of peripheral arteriosclerosis during the past ten years. Only one of the cases of thrombo-angiitis obliterans called for amputation, because of complete destruction of the foot by the gangrenous process, due to superimposed arteriosclerosis.

The chapters on the two pathologic conditions mentioned include complete details of the non-surgical treatment.

Emphasis is laid on the methods of establishing a correct diagnosis in the early stages of peripheral arterial disease.

This monograph should be particularly valuable to clinicians, both general practitioners and surgeons.

Taussig: Abortion

ABORTION. Spontaneous and Induced. Medical and Social Aspects. *By Frederick J. Taussig, M.D., F.A.C.S., Professor of Clinical Obstetrics and Clinical Gynecology, Washington University School of Medicine, St. Louis. Illustrated. This Volume is One of a Series Dealing with Medical Aspects of Human Fertility Sponsored by The National Committee on Maternal Health, Inc. St. Louis: C. V. Mosby Company. 1936. Price, $7.50.*

Abortion, no matter how brought about, has become a world problem which is engaging the attention of every physician interested in the preservation of maternal health. Dr. Taussig's book is the first published in the United States which attempts to deal with any completeness with every aspect of this subject. The author is well qualified for this task, as he has been writing on abortion for more than twenty-five years; his book is sponsored by the National Committee on Maternal Health, the members of which cooperated in its production; the assembly of all available and basic material and the method of presentation may, therefore, be considered as authoritative.

There are 38 chapters which cover the history and racial aspects of abortion, its pathologic, etiologic and diagnostic aspects; its complications, sequelae and treatment; statistics and preventive measures. Spontaneous, induced and therapeutic abortion are each considered in detail.

The social aspects of abortion receive special attention; under this general heading may be included the chapters dealing with the economic and domestic as well as the theologic and ethical aspects of induced abortion. The pros and cons of legalizing abortion in the United States are discussed and the legal aspects of induced abortion, both here and in foreign countries, are fully covered, as well as the possibility of controlling such practice. The book closes with an extensive bibliography.

There can be no doubt that the time has arrived when the medical profession, as well as the public in general, should squarely face all the facts connected with abortion, especially the evils associated with self-induced methods or those practiced by ignorant and unskilled operators. There is a crying need of putting the whole matter of induced and

therapeutic abortion on a sane medical and social basis. Law tags behind public opinion and the practice of medicine is hampered in its duty of affording aid to those who need its help by the existence of statutes which make it a crime to be merciful.

Dr. Taussig's book has rendered a fundamental service by presenting all the data necessary to combat the existing evils of abortion, and every medical practitioner owes it to himself to become fully acquainted with the facts and views presented in this volume.

National Formulary VI

THE NATIONAL FORMULARY. Sixth Edition. National Formulary VI. *Prepared by the Committee on National Formulary by Authority of the American Pharmaceutical Association. Official from June 1, 1936. Washington, D.C.: American Pharmaceutical Association. 1935. Price, $5.00 per copy in cloth and $6.00 per copy in flexible leather.*

The National Formulary (N. F.) is one of a trio of books (the others being the U.S. Pharmacopeia and "New and Non-Official Remedies"—N. N. R.) which should be in the library of every physician, pharmacist, dentist, and all others caring professionally for the sick, for constant reference. These three volumes supplement each other.

The N. F. lists and describes those drugs which, while not yet accepted for the Pharmacopeia, are widely used in prescription work in the United States, (at least once in each 10,000 prescriptions, or 25,000 times each year). It is not, therefore, a repository of obsolete preparations, but a fair cross-section of medical practice today. The descriptions of the various remedies are as extensive as is necessary for their intelligent use.

About 400 new drugs, including a number of ampule preparations and endocrine extracts, have been added to this edition; and about 300, included in N. F. V, have been dropped. A number of changes have been made in Latin and English titles.

The paper, typography and binding of the book are excellent and the index is exhaustive.

Loeb and Farber: Martini's Principles of Physical Diagnosis

MARTINI'S PRINCIPLES AND PRACTICE OF PHYSICAL DIAGNOSIS. *Edited by Robert F. Loeb, M.D., Associate Professor of Medicine, College of Physicians and Surgeons, Columbia University, and Presbyterian Hospital, New York. From the Authorized Translation by George J. Farber, M.D. 30 Illustrations in the Text. Philadelphia, Montreal and London: J. B. Lippincott. 1935. Price, $2.00.*

This is the first English translation of Professor Paul Martini's (Munich) book on the principles and practice of physical diagnosis. The basis of his method is that the physician should use his senses in the fullest degree for the recognition and evaluation of disease.

Although roentgenology and electrocardiography are of immense value and have obviated the necessity for many of the older "physical signs" of disease, yet Martini places special emphasis on thorough percussion and auscultation in investigating the respiratory tract, the circulatory system, the cardiovascular system and the abdominal organs. The book is divided into sections devoted to these systems and the physical findings are enumerated in full detail.

Martini rightly observes that the training of the sense faculties is the foundation, without which the development of the student of medicine is impossible.

Mitchiner: Burns and Scalds

THE MODERN TREATMENT OF BURNS AND SCALDS. *By Philip H. Mitchiner, M.D., M.S. (Lond.), F.R.C.S. (Eng.), Hon. Surgeon to H. M. the King; Surgeon and Lecturer in Surgery, St. Thomas's Hospital; Colonel A.M.S. (T.A.), A.D.M.S., 47th (2nd London) Division. Baltimore: William Wood and Company. 1935. Price, $2.00.*

The author has prepared a small but very practical little book on the treatment of burns and scalds, the general principles involved, and full details of the use of the tannic acid compress, with a brief account of other treatment. All types of burns are described, including sunburn, electric, x-ray, radium, chemical, tar, cordite, gasoline, phosgene, and mustard gas. It is a handy reference book in the emergencies of a general practice.

Rogers and Thomas: Cerebral Palsy

NEW PATHWAYS FOR CHILDREN WITH CEREBRAL PALSY. *By Gladys Gage Rogers, Director of Robin Hood's Barn: A Camp School for Children with Cerebral Palsy; and Leah C. Thomas, Director of Therapeutics at Robin Hood's Barn; Formerly Associate Professor of Hygiene and Physical Education, Smith College; Formerly Director of Corrective Exercises under the Direction of Dr. Joel E. Golthwait and Dr. Robert B. Osgood, Boston, Mass. With Photographs by Newell Green. New York: Macmillan Company. 1935. Price, $2.50.*

One of the largest groups of crippled children consists of those pathetic unfortunates who are afflicted with cerebral palsy, and who have, heretofore, generally been considered as a complete social loss. These children are now being salvaged, and this book tells how it is done.

The authors have done more than tell us how to attain the proper mental attitude in dealing with the handicapped child. They have passed on to us the resourcefulness which they have acquired after years of experience. The suggestions and lists of books which they have included for the children's reading, and of specially adapted toys for play, are admirable. They have pictured the type of room in which a child may be made

most happy at home and have suggested the adaptations of furniture most suitable to his needs. They have also discussed with much pedagogic wisdom the courses of study appropriate to a given age and a given mentality. The book is packed with practicality. Through its pages flows an optimism justified by accomplishment.

Du Bois: Basal Metabolism

BASAL METABOLISM IN HEALTH AND DISEASE. *By Eugene F. Du Bois, M.D., Medical Director, Russell Sage Institute of Pathology; Professor of Medicine, Cornell University Medical College, New York; Physician in Chief to the New York Hospital. Third Edition, Thoroughly Revised. Illustrated with 98 Engravings. Philadelphia: Lea & Febiger. 1936. Price, $5.00.*

While there is still much unexplored territory in the field of body metabolism, the author of this book is content to consolidate the gains already made, with one important exception. The field of physical channels of heat-loss has already proved so fruitful that a new chapter is devoted to it. The chapters dealing with surface area and normal standards have been rewritten and rearranged to cover the recent advances in these topics, and the chapters on disease have been considerably augmented.

Basal metabolism is becoming increasingly important to the general practitioner. This thoroughly revised edition of an authoritative work aims to bring the subject into the realm of clinical medicine, making it particularly valuable to the practitioner of medicine and surgery, the physiologist and the dietitian.

Morison and Saint: Introduction to Surgery

AN INTRODUCTION TO SURGERY. *By Rutherford Morison, M.D., F.R.C.S. Edin., F.R.C.S. Eng., M.A., D.C.L., LL.D., Emeritus Professor of Surgery, Durham University; and Charles F. M. Saint, C.B.E., M.D., M.S., F.R.C.S., F.R.A.C.S., Professor of Surgery, Cape Town University, South Africa. Third Edition. Baltimore: William Wood and Company. 1935. Price, $5.00.*

In teaching surgery, the essential factor for success lies in the establishment of general principles, their constant repetition, and their regular illustration by the cases which are presented for examination. As stated in the preface, the object of this book is to aid the student in thinking out for himself the problems presented to him in the wards and in his textbooks. The achievement of this object is attempted through the consideration of general principles and their application, by which it is realized that all the important pathologic subjects to be studied, which ordinarily might be thought to be isolated entities, are part of an all-embracing whole. As soon as these principles are understood and their applicability realized, the student ceases to be overwhelmed by the masses of surgical detail presented to him and may begin to feel an interest in subjects which before seemed surrounded by insurmountable difficulties.

The general surgical principles are set forth in 24 chapters—shock, hemorrhage, infection, specific pathologic conditions, etc. The volume, which is amply illustrated, should be very interesting to students and teachers of surgery. This is the third edition.

Brugsch: Internal Medicine

LEHRBUCH DER INNEREN MEDIZIN. *By Professor Dr. Theodor Brugsch. Professor der Medizin in der Martin Luther-Universität, Halle-Wittenberg, und Direktor der med. Universitätsklinik, Halle. Third Edition. In Two Volumes. 132 Illustrations in Text and 15 Color Plates. Berlin and Vienna: Urban & Schwarzenberg. 1935. Price, RM 50 and RM 55.*

This textbook was so popular that a second revised edition had to be issued within two years. It was brought up to date by various rearrangements of subject matter, and the presentation of the subject in a more condensed manner. For instance, in the first edition pernicious anemia was treated under the subject of deficiency diseases, whereas in this edition it has been properly incorporated in the chapter on diseases of the blood. The chapters on intestinal diseases and diseases of the nervous system have been rewritten and greatly improved.

These two volumes are encyclopedic in nature and cover the subject thoroughly. The chapter on general therapy would, however, be more useful to the non-German physician if it did not contain such a vast number of proprietary drugs which are either unknown or not popular in other countries.

As a reference book, these volumes should find an important place in the library of German-speaking physicians and students.

M. K.

Henry: Psychopathology

ESSENTIALS OF PSYCHOPATHOLOGY. *By George W. Henry, Associate Professor of Psychiatry, Cornell University Medical School, New York; Attending Psychiatrist, The New York Hospital, New York City. Baltimore: William Wood & Company. 1935. Price, $4.00.*

Designed chiefly for physicians and medical students, this work has great value for psychologists and all students of psychopathology. It is a clear, concise presentation of the nature and causes of personality disorders, with methods of examination described.

Dr. Henry has had long experience in clinical and laboratory work, as well as in the teaching of psychopathology. The valuable illustrative clinical material is derived from personal studies at four great institutions, the Henry Phipps Psychiatric Clinic, Baltimore; the Bloomingdale Hospital, White Plains, N. Y.; the Bellevue Psychopathic Hos-

pital; and the New York Hospital, both in New York City, and since all clinicians are meeting psychologic problems every day, the application of the instruction he gives is very wide.

Marshall: Detachment of the Retina

DETACHMENT OF THE RETINA. Operative Technique in Treatment. *By J. Cole Marshall, M.D., F.R.C.S., Senior Surgeon, Western Ophthalmic Hospital; Ophthalmic Surgeon to the Lambeth Hospital. Oxford University Press, London: Humphrey Milford. 1936. Price, $2.75.*

The author gives short and concise descriptions of the various methods in vogue at present, especially in European clinics, for the treatment of detachment of the retina. Particular attention is given to the thermopuncture method, introduced a few years ago by Gonin, of Lausanne, and to the micropuncture method associated with the Viennese School, this latter being the author's method of choice.

The book, which is excellently printed on good paper, should be of special interest to ophthalmic surgeons.

Wollheim and Schauinsland: The Herrmannsdorfer-Sauerbruch Diet

THE HERRMANNSDORFER-SAUERBRUCH DIET. *By Robert Wollheim and Walter H. Schauinsland, Ph.D. With a Foreword by Joseph Alexander, M.D. New York: Professional Scientific Service. 1935. Price, $1.00.*

The Gerson diet for the treatment of tuberculous patients was first introduced in 1923. Sauerbruch and Herrmannsdorfer, in 1925, modified the diet, following experimental and clinical studies in the various forms of tuberculosis, and obtained very satisfactory results. The main idea in these diets is to eliminate table salt (sodium chloride), to provide for constitutional requirements by means of other mineral matters than those obtained from table salt, and to evenly space feedings of well chosen food elements.

This monograph tells everything that is necessary to know about the Herrmannsdorfer-Sauerbruch diet, including permitted and prohibited foods and dietary regulations. The authors have had much practical experience with the diet, and their book should be of interest to dietitians concerned with tuberculous patients, as well as to others for whom a salt-free diet is desirable.

New Books Received

The following books have been received in this office and will be reviewed in our pages as rapidly as possible.

DIE ZUCKERKRANKHEIT. *By Prof. Dr. Wilhelm Falta. Berlin, Germany: Urban & Schwarzenberg. 1936. Price, paper cover, R.M. 15; bound, R.M. 16.50.*

INTERPRETATION OF LABORATORY FINDINGS. *By Raymond H. Goodale, M.D. Philadelphia: F. A. Davis Company. 1936. Price, $2.25.*

THE ADRENALS. *By Arthur Grollman Ph.D., M.D. Baltimore: The Williams & Wilkins Company. 1936. Price, $5.00.*

ALLERGY OF THE NOSE AND PARANASAL SINUSES. A Monograph on the Subject of Allergy as Related to Otolaryngology. *By French K. Hansel, M.D., M.S. St. Louis: The C. V. Mosby Company. 1936. Price, $10.00.*

CLINICAL HEART DISEASE. *By Samuel A. Levine, M.D., F.A.C.P. Philadelphia and London: W. B. Saunders Company. 1936. Price, $5.50.*

MY LIFE AND WORK. The Search for a Missing Glove. *By Dr. Adolf Lorenz. New York and London: Charles Scribner's Sons. 1936. Price $3.50.*

HANDBOOK OF SURGERY. *By Eric C. Mekie, M.B., Ch.B., F.R.C.S. (Edin.). With a Foreword by John Fraser, M.C., M.D., Ch.M., F.R.C.S.E. Baltimore: William Wood & Company. 1936. Price, $4.50.*

THE COMMON COLD AND INFLUENZA AND THEIR RELATIONSHIP TO OTHER INFECTIONS IN MAN AND ANIMALS. *By J. E. R. McDonagh, F.R.C.S. The Nature of Disease Annual Reports for the Years 1934 and 1935. London, England: William Heinemann (Medical Books) Ltd. 1936. Price, 12s 6d net.*

MEDIZINISCHE PRAXIS. Volume IX, Blutung und Fluor. *By Prof. Dr. Hans Runge. Dresden, Germany: Theodore Steinkopff. 1936. Price, paper cover, R.M. 7.——; bound, R.M. 8.——.*

SURGICAL CLINICS OF NORTH AMERICA. *Volume 16, Number 1. February, 1936. Philadelphia: W. B. Saunders Company. 1936. Price, per clinic year; paper, $12.00, cloth, $16.00.*

KAMA SUTRA. The Science of Love. *By Mallinago Vatsyayana. Translated from the Sanskrit by Sir Richard Burton. New York: The Medical Press of New York. 1936. Price, $2.00.*

CARDIOVASCULAR DISEASE. A New Aspect of Cause and Treatment. *By J. H. Schrup, M.D., 202 B. & I. Building, Dubuque, Iowa. 1936. Price, $.12.*

FOTOGRAFIA DEL ESTOMAGO. Sus Aplicaciones en el Diagnostico del Cancer del Estomago. *By Dr. Herbert Hofmann. Buenos Aires: Aniceto Lopez, Imp. 1936.*

EMERGENCY SURGERY. *By Hamilton Bailey, F.R.C.S. (Eng.). 2nd Edition. Baltimore: William Wood & Company. 1936. Price, $14.00.*

MEDICAL NEWS

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Preparing for Gas Attacks in England

BITTER experience in the World War taught the English people the wisdom of being prepared for gas attacks from the air.

The picture above shows members of the voluntary aid detachment of the British Red Cross Society, equipped with gas masks and protective clothing, preparing to remove hypothetical "wounded" to a gas-proof shelter, in the midst of a simulated gas attack. This practice was recently carried out at Chislehurst, in Kent.

Dr. Ridlon Passes

DR. John Ridlon, well-known orthopedic surgeon, teacher and author, for many years head of the orthopedic department of Northwestern University Medical School, came to the close of his long and useful career (he was 84 years old) on April 27, 1936.

Vitamins and Longevity

IT has been generally considered that, barring accidents (and a pneumococcus is as much an accident as an airplane crash), length of life depends entirely upon heredity.

Recent work by Sherman, of Columbia University, shows that rats given an over-supply of vitamins live 10 percent longer than their brothers eating a "normal" diet. If we cannot select our grandfathers, perhaps we can choose our vitamins—and live a century.

Doctors by Favor

THE Archbishop of Canterbury (head of the Church of England) has authority to confer a medical degree upon anyone he chooses, whether that person has ever had a day of medical instruction or not. This power is rarely or never exercised today.—DR. I. S. CUTTER.

Passing of Dr. Coley

DR. William Bradley Coley, the widely known authority on cancer and the originator (in 1893) of "Coley's toxin" for the treatment of malignant tumors, passed to his rest in New York City on April 16, 1936, at the age of 74 years.

The Advertisements are NEWS! Read and use them.

Moving Picture Films

MOVING picture films are now an established and important part of medical education and of the instruction of laymen in matters of medicine and hygiene.

A practically complete and well-classified list of such films is now available to individual speakers and to medical groups, with the addresses at which they may be obtained and the prices at which they are sold or rented. This may be obtained by sending 25 cents to the Bell and Howell Co., Films Division, 1801 Larchmont Ave., Chicago, Ill.

Course in Hospital Management

DR. Joseph C. Doane, of Philadelphia, will give a short course in hospital management and operation at Cornell University, Ithaca, N. Y., from June 29 to July 11, inclusive, 1936. The course is for those who are or have been actively engaged in hospital work; not for novices. The tuition fee is $10 a week. Those interested should write to Prof. Howard B. Meek, at the University.

Physicians on Relief

OUT of more than 6,000,000 people on relief, only about 50 physicians, compared with 1,000 lawyers, 3,000 ministers and religious workers, and more than 20,000 teachers.